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REVUE CANADIENNE D'URBANISME

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COMMUNITY PLANNING REVIEW

REVUE CANADIENNE D'URBANISME

A SPECIAL ISSUE

Open Spaces, Landscape Architecture
and Community Planning

NUMÉRO SPÉCIAL

Espaces libres, Architecture paysagiste
et Urbanisme

Editor: ERIC BEECROFT

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Photo: Federal District Commission

NATIONAL CAPITAL

Ornamental ponds are an attractive feature of the Federal District Commission's Driveway system in the National Capital. They have been developed in former creek areas draining into the Rideau Canal. The lily pond shown is between the Driveway and the Canal, opposite Fourth Avenue.

Mr. Wood's article on *Landscape Architecture in the National Capital* begins on page 13.

CAPITALE NATIONALE

Les étangs décoratifs sont des spectacles très agréables du réseau de promenades de la Commission du district fédéral dans la capitale nationale. La Commission a aménagé les étangs aux sites d'anciens ruisseaux qui se déchargeaient dans le canal Rideau. L'étang aux nénuphars que l'on voit sur la photo est situé entre le Driveway et le canal à l'angle de la Quatrième Avenue.

L'article intitulé *Landscape Architecture in the National Capital* par M. Wood, commence à la page 13. On trouvera, à la page 25, un abrégé en français.

This article is based upon an address given to the Canadian Society of Landscape Architects and Town Planners in Toronto on December 12, 1955. For permission to publish it, the REVIEW is grateful to both Mrs. Oberlander and the CSLA.

PARKS, PLAYGROUNDS AND LANDSCAPE ARCHITECTURE

by **Cornelia Hahn Oberlander**

"Landscape architecture", wrote President-Emeritus Charles W. Eliot of Harvard University in 1910, "is primarily a fine art and as such its most important function is to create and preserve beauty in the surroundings of human habitations."¹

Already in those early days of the century, President Eliot was urging the landscape architect to be concerned with the broader aspects of the landscape, such as national parks, public open spaces in our cities, parkways, public buildings—not only with the fine art of making gardens for the few that could afford it.

In order to understand fully what is demanded of the landscape architect today, and what the future will bring, let me trace in a few moments the historic events of the last three hundred years in our field.

The roots of our present work lie in the French and in the English tradition.

Man has always tried to change his environment to suit his needs; in fact his outstanding trait since time immemorial has been to organize nature for a purpose, while, on the other hand, nature continues to grow unrestrained. Of this man-made environment, Versailles is the best example. There Louis the Fourteenth engaged a team of artists—Le Vau, the architect, Le Brun, the painter, and Le Nôtre, the landscape architect—to create for him surroundings that would act as a foil for his court and the grand fêtes of the time, with water fountains, grottoes, theatres, avenues lined with trees and floral displays. Le Nôtre's great contribution lies in a complete subjugation of nature. Designs on a grandiose scale express the spirit of absolutism and firm discipline. The gardens which Le Nôtre designed were for the glorification of *le roi soleil* and not for people.

Versailles made a considerable impression on the 17th century English aristocracy. But by the 18th century,

¹From a letter to the editors of *Landscape Architecture*, Volume I, No. 1, October 1910.

a more democratic nationalism was beginning to appear in England. The writings of the time show that the English people were admiring and taking pride in their natural, open landscapes. About 1725, Lancelot Brown, better known as Capability Brown, laid out the gardens at Stowe. About this work a writer of the day said that "nothing is more irregular in the whole, nothing more regular in the parts which totally differ the one from the other", and he continues:

"What adds to the beauty of this garden is that it is not bounded by walls but by a ha-ha, which leaves you the sight of a beautiful woody country and makes you ignorant how far the high planted walls extend."²

While the French shut out their gardens from the surroundings, the English opened them up to the wide landscape beyond. For the first time, the individual tree found its proper place. The period of the picturesque, as it is called, was largely influenced by the

²Marie Luise Goethein: *A History of Garden Art*, J. M. Dent, London, Toronto, Vol. II, No. 15, p. 277.

THE AUTHOR

Mrs. Oberlander is a graduate of Smith College (B.A. 1944) and the Harvard Graduate School of Design (B.L. Arch. 1947). Following graduation, Mrs. Oberlander was employed with the New York Regional Plan Association and the Citizens' Council on City Planning in Philadelphia. From 1951 to date, she has been in private practice in landscape architecture and site planning, working mainly on large housing projects, playgrounds and old age housing. In 1953 she married H. Peter Oberlander, Assistant Professor of Planning and Design in the University of British Columbia, and is continuing professional work in Canada.

*This meadow, with
brook and willows, is
in Stanley Park.*



Photo: Williams Bros., Vancouver

French landscape painters, Poussin and Lorrain. Humphrey Repton, the well-known landscape designer of the middle of the eighteenth century, called this picturesque landscape "slovenly carelessness". He wrote two remarkable books explaining some of his theories about plant materials, distances of trees and siting of buildings.³ He advocated that flowers be grown in orderly raised beds, a method which many believe was invented by the present-day landscape architects in California. Repton's influence was great. Rousseau, the French educator and philosopher, brought the ideas of Repton's English garden back to France; and here on the North American continent, Repton's idea found expression in the work of Andrew Jackson Downing.

In the United States and Canada, our tradition of landscape design is very young. Our colonists were mostly French and British, and they brought with them European traditions of gardening. At first the gardens on this continent were small and utilitarian; vegetables were raised in square or rectangular beds without much concern for the areas beyond. The most famous kitchen garden of colonial times is preserved in Mount Vernon, George Washington's residence in Virginia.

The Reptonian influence was strong, however, and as times became more settled, Andrew Jackson Downing started to lay out gardens in the English style, adapted and modified to fit the American scene. In 1857, Frederick Law Olmsted was appointed Superintendent of New York Parks, and through his work the profession of landscape architecture became recognized and known. It was he who coined the term "landscape architect".

³*Sketches and Hints on Landscape Gardening*, 1894, and *Observations on the Theory and Practice of Landscape Gardening*, 1803.

The prize-winning design for Central Park marked a milestone in our profession. There, Olmsted and his partner Vaux (a former associate of Downing) produced a social pleasure ground indigenous to the American way of life. Olmsted himself wrote little but had a most successful and active career. He was a man of principles. These principles can readily be seen in many projects throughout the continent and may be summarized briefly.

- (1) Preserve natural scenery and if necessary restore and emphasize it.
- (2) Avoid all formal design except in limited areas near the building.
- (3) Keep open lawns and meadows in large central areas.
- (4) Use native trees and shrubs, especially in heavy border plantings.
- (5) Provide circulation by means of paths, roads laid in wide, sweeping curves.
- (6) Place the principal road so that it will approximately circumscribe the whole area.

These principles are well demonstrated in Mount Royal Park in Montreal, with which we are all familiar. It took Olmsted thirty-five years to realize his plans; as a matter of fact the creation of this park gave him a great deal of sorrow, and he wrote a heart-rending account of these proceedings in a little book published by himself, called *Mount Royal Park*. This book describes very well the hurdles we have to face to get our ideas accepted.

In Canada, the English tradition has always been strong. We see it in Victoria Park at Niagara, the Ottawa Park system, Rockcliffe Park and all the drives that

connect one park area with the other. Also in the English tradition are Stanley Park in Vancouver, a natural reserve, and the Central Experimental Farm in Ottawa.

This short résumé of the past demonstrates that the French designed their gardens for royal splendour and the English because they loved nature, and that to-day in North America, we design outdoor spaces because we love people.

NEW CLIENT: THE COMMUNITY

We live in an essentially democratic society of which the landscape architect is a part. By the nature of his skill he should be able to serve this society. In order to be successful, the landscape architect must acquire a thorough understanding of this new client, namely the community, represented by publicly elected or appointed officials.

Today modern architecture has won its battles all over the world. But with very few buildings can the work of a landscape architect be seen. Everywhere one can find new buildings that have been spoiled by faulty siting or excessive foundation planting. There are hundreds of examples where well-designed buildings, such as housing projects, have been spoiled by a lack of understanding of the spaces between the structures. The role which plant material, paths or incidental open spaces can play in relating the buildings to each other has not been explored.

Modern architecture needs the landscape architect, and we must train students to fill this gap. The architect is desperately looking for a landscape architect who speaks his language aesthetically and structurally and with whom he can work as an associate. In England, Sweden and in a few isolated places on this continent, such as Philadelphia and Don Mills near Toronto, the political and administrative organization has recently changed and has created various needs for the landscape architect. New towns, neighbourhood plans, parkways, national parks are being projected. If the landscape architect is to play his full part in these large-scale developments, he must be more than a mere planner of gardens. His work in the present and future must not only concern itself with layouts for parks and playgrounds. For example: the landscape architect must work with the architect and the engineer on shopping centres, housing, roads, schools and other public buildings. All these buildings and spaces must be woven into an integrated whole. This can only be done by the landscape architect who will work as a member of a team. One should no longer think of the landscape architect as a gardener with a smattering of architectural knowledge. Rather he is an architect, whose faculties have been extended further to include a wider perception of nature and to enable him to work with living materials of the landscape.

Thus the landscape architect's major concern, briefly stated, is with

- (1) the land, its forms and character;
- (2) the relationship of buildings;
- (3) vegetation and construction materials.

In dealing with these three points, the landscape architect approaches his problem very much like the architect in that he tries to achieve a synthesis of materials in order to meet a clearly stated social need: for example, designing a park or a housing project.

On this continent, conscious efforts have been made by Thomas Church, Garrett Eckbo, Lawrence Halprin and others, mainly in California, to bring about an understanding of contemporary landscape architecture. Examples of their work show that they have mastered the relationship of the building with the ground, construction and plant materials. All these elements usually stand in a strictly geometrical relationship to each other. In Brazil, Burle-Marx, originally a painter in the tradition of Miro, practices landscape architecture. He is composing paintings, where flowers, gravel and grasses are part of his palette, thus producing a two-dimensional effect, much like *Le Nôtre*, except in free forms.

From both of these schools of landscape architecture, we can learn a great deal. But we must go further. Beginning a new era, we are no longer working for the private client only, but more and more for the public. To illustrate this point, let me tell you about some experiences in Philadelphia.

PHILADELPHIA

The Philadelphia story starts in 1951, when Joseph S. Clark became Democratic Mayor of the City. This victory broke 60 years of Republican Party Government. A new city charter was adopted and many young progressive minds were brought into leading positions in the city government. One of these new appointees was Fredric R. Mann, Commissioner of Recreation, who reorganized with boundless energy the whole department.

Before this time a recreation area in Philadelphia constituted a piece of ground with an eight-foot-high cyclone fence, usually large enough for ball games, with a few isolated swings and slides, in case the little ones wanted to come too. The grass was always worn, and in a most unimaginative shelter building sat a guard.

The citizens of Philadelphia had seen, however, in the Better Philadelphia Exhibition what a neighbourhood playground could be like and they were longing for such parks and recreation areas. This Exhibition, held in 1947, showed, among other things, actual plans for a Better Philadelphia and demonstrated the scope of City Planning. The City Planning Commission, in the years following the exhibition, had started to develop a comprehensive recreation plan. This enabled Mr. Mann

to start immediately to set up a capital improvement program for recreation sites and to hire young architects and landscape architects to convert old sites into new playgrounds or design new playgrounds on recently acquired land.

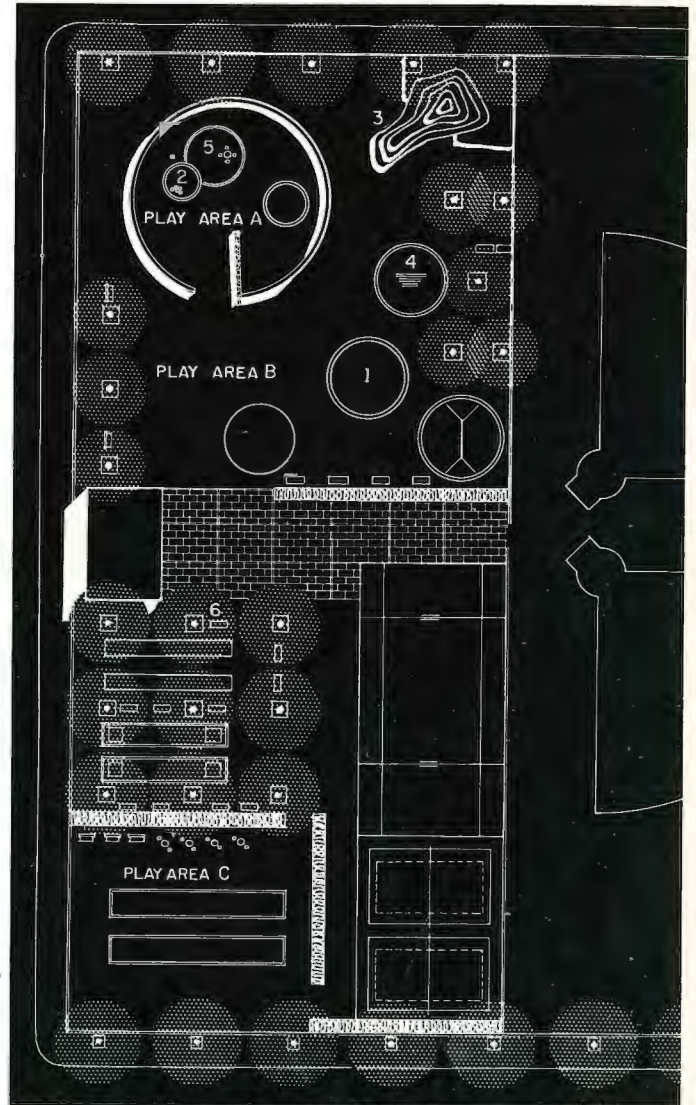
One of the first sites was entrusted to me. I was told to make a 3.5 acre site useful for the whole neighbourhood. I set out to collect information as to age groups, population composition, traffic, school locations and other pertinent data that could be given to me by the City Planning Commission and the Board of Education. The data showed what kind of playground was needed in the area. In designing it, several problems were encountered, one of the largest being the unavailability of good playground equipment. Commercially, only swings and slides were to be had. These were unsatisfactory from a safety point of view. Swing-seats were made of wood or metal and a child could be easily hurt; and the child's imagination was not stimulated by this equipment. To create a whole new line of equipment took team-work—cooperation from sculptors, playground manufacturers and public officials. Public meetings were held to tell the neighbourhood of these new ideas; they accepted the design quickly and readily.

It took three years to develop this playground. In September 1954, Mr. Mann, opening the area, said that "this playground is another step in the Department's new approach to recreation—leisure time fun for all age groups. It is a carefully planned recreation facility with different and outstanding attractions, many of which have never been used in any part of the nation. The September 13th issue of *Life Magazine* describes this site and its equipment as exciting and ingenious".

A progressive client then, such as the City of Philadelphia Department of Recreation, changes the landscape architect's attitude and approach. By now, it is an everyday occurrence for the Department to accept new and different designs for every playground, and the architect or landscape architect is constantly encouraged to develop new ideas.

Another public client is the Philadelphia Housing Authority. In working on these projects I realized what team work can be like.

The Housing Authority assigns projects to different architects, after a careful analysis of cost and density has been made for the development of a specific site. The architect who has been selected submits names of the engineers and the landscape architect with whom he would like to be associated. After the contracts have been given out, this team of professionals work together from the very beginning. The architect evolves the buildings from a thorough site analysis made by the landscape architect. The grades for roads, paths, outdoor sitting



PLAY CENTRE

Part of the plan of the block-sized play centre developed by Mrs. Oberlander for a congested neighbourhood in Philadelphia. Many of the city's other playgrounds are likely to be developed in a similar manner.

Area A, for smaller children, has climbing logs (1) and tables and stools (5) and is enclosed by a low wall on which mothers may sit.

Area B is for larger children, offering the Möller-Nielsen play sculpture and other interesting facilities shown on the following pages.

Area C provides a resting area with concrete benches and games courts and tables for adults.

All of these areas are paved, except those marked by circles. The remainder of the 3½ acre block (at right of the map) is a ball field.

PARKS, PLAYGROUNDS AND LANDSCAPE ARCHITECTURE



Upper left, a concrete play mountain (3)



Upper right, an amphitheatre climber (4)

Right, climbing logs (2)

Below, tables and stools for smaller children (5)

Numbers refer to the Plan on the previous page



PHILADELPHIA CHILDREN

using the playground described by Mrs. Oberlander on page 7. The neighbourhood playground program, started by Recreation Commissioner Fredric R. Mann and being continued under Commissioner R. W. Crawford, is intended to provide city play centres which entire families can enjoy.

ACKNOWLEDGMENTS

The REVIEW is indebted to *Progressive Architecture*, published in New York, N.Y., for permission to reprint these illustrations of the Philadelphia playground. The photographs are by Lawrence S. Williams.

PLAY SCULPTURE

by Egon Möller-Nielsen

The sculpture at right is part of the equipment in the Philadelphia neighbourhood playground described in Mrs. Oberlander's article. In the plan on page 7 it is shown as circle 1.

The sculpture shown below is in a park near a housing development in Stockholm.



Photo: Lawrence S. Williams



Photo: H. Peter Oberlander



KARRTORP,
near Stockholm

*Photo: Courtesy of the
Legation of Sweden, Ottawa*

areas and slopes are established by the landscape architect and the engineer. Catch-basins, wiring and underground services are worked out together, so as not to interfere with trees or other landscaped areas. Models are built; meetings are held with public officials such as housing experts, representatives of the Housing and Maintenance Department and with residents of the community. Through this process the design evolves as a whole, everyone working for the common benefit. After such a job is completed, it is hard to tell precisely which parts of it were contributed by the architect, the engineer, the landscape architect, the departmental officials and the residents of the neighbourhood.

On all such public jobs, the designers must work within an established budget. For the actual planting in a housing project of nine million dollars, the cost is roughly 1%; but grading and site improvements run from 3 to 5%, depending on the terrain.

Public officials are always worried about maintenance cost. It is wise, therefore, to write into the initial specifications a three-year maintenance contract for lawns and planting. Otherwise no one will ever look after the site. At the Philadelphia airport, this would have saved me many a headache. Experience shows that

such yearly maintenance cost is roughly 10% of the initial expenditure for the lawns and planting. To conserve on maintenance costs, it may be advisable to use a more expensive paving material initially, such as Belgian blocks, instead of a lawn which needs care or concrete walks which break. The landscape architect must use his skill, imagination and knowledge when designing for this public client.

On all these projects, it is wise to limit oneself to a few varieties of plants. It is advisable to use fairly large trees; shrubs only when planted in masses; and large areas of grass that can be cut easily instead of hundreds of pocket-handkerchief size. All plant material should be easy to grow and of course indigenous to the region.

Farsighted governments, such as in Philadelphia, are rare. The new City Charter, adopted in 1951, established also an Art Commission that must pass on every public building or public space, from the largest State Building to the smallest Fire Hall in an outlying district. This will ensure orderly development over the years. On every public building a landscape architect must be employed to work with the architect from the beginning.



Photo: H. Peter Oberlander

Wimbledon Housing (London County Council) 1955. The buildings are well-sited into the existing landscape. The old trees are carefully preserved, giving the place a lived-in look.



Photo: Taue Ulmerudh

Modern apartment buildings in one of the Stockholm suburbs.

As we well know, the main contributions of the landscape architect lie no longer in the fine art of making gardens, but in site planning, housing projects (public and private), and in playgrounds and parks, small and large; in short, in all the phases of public works.

SWEDEN

In this respect we can learn much from Scandinavia. In Sweden especially, an unrivalled standard of urban design has been attained. Swedish designs incorporate not only plants, but modern means of construction and materials. All elements are interrelated skilfully with buildings, shops and the natural surroundings. The natural landscape is often just cleared enough to allow a building to be slipped in between wedges of green. Many areas not built on are left in their natural state and, therefore, require little maintenance. Even for a single-family dwelling or a terrace house, the site is carefully studied. Terrace houses do not have large backyards but outdoor living rooms, beyond which lies the natural area for the enjoyment of all.

The parks in Stockholm are planned to provide for

aesthetic and recreational enjoyment; they are to be used like the English village green as the common land of the town where people meet for community purposes, such as games, concerts and plays. Social changes have taken place in Sweden. Holger Blom, the Chief of the Stockholm Parks Department, could not have produced such works without the changed attitude of the administration and the vast influence that the Stockholm Exhibition of 1930 had on the arts and architecture. The Philadelphia story has its parallel in the better Philadelphia Exhibition of 1947 and the new outlook brought into politics by the Clark administration.

LANDSCAPE ARCHITECTURE IN CANADA

Canada today is enjoying an unprecedented economic development. Whereas in 1900 six out of ten people lived on farms, today the reverse is true: six out of ten people live and work in cities, without ready access to the country and open spaces. Our leisure hours are increasing; in a few years we may see the four-day work week. Thus the need for more parks and a variety of open spaces increases rapidly. We must start to plan for

PARKS, PLAYGROUNDS AND LANDSCAPE ARCHITECTURE

this need, before all of the suitable land is assigned to other uses. For all this work the landscape architect must be prepared.

Let me stress the dire need for more and better landscape architects trained at home! Professionals ought to be ready to meet the demands of this growing country and to cope with the new client, the public. Schools have been founded in Canada to train architects and town planners but none to train landscape architects. There should be a school, where students are taught fundamentals of design; contemporary architectural principles; a thorough understanding of site planning and site engineering; a knowledge of plant materials; and—above all—understanding of teamwork. Through the work of landscape architects trained in this manner, their profession will achieve a status commensurate with its social importance.

Architects today are reluctant to hire landscape

architects for fear that they are mere tree and shrub decorators. This misconception can only be remedied if landscape architects are trained to work with architects, town planners and engineers as members of a team.

I hope that in the near future at least one of our Canadian Universities will establish professional courses in landscape architecture, related to courses in architecture and town planning, to train young men and women in a wide open and very exciting field. To be successful, we must as a group produce a contemporary philosophy of design, just as Repton and Olmsted did before us. We might voice our thoughts through a journal, published three or four times a year. Such a journal might be sent to other interested groups—architects, town planners and home builders. This might help to bring about a better understanding of landscape architecture and might contribute to the full recognition of our profession.



Vällingby, a new town near Stockholm. Tall buildings and garden apartments are carefully sited into the existing landscape. The shopping centre will serve a neighbourhood of 23,000.

Photos: H. Peter Oberlander

*Kungsträdgården, Stockholm.
Holger Blom, Architect.*

This park is in the business centre of Stockholm, offering recreation during the lunch hour.





F.D.C. Photo

PARLIAMENT HILL, viewed from an overlook on Nepean Point. With its vegetation, the cliff provides a strong base for the buildings; but to maintain the vegetation on the steep northern slopes is a continuous problem.

COLLINE DU PARLEMENT. Les édifices du Parlement vus de la pointe Nepean. Ces édifices perdraient beaucoup de leur solidité sans la végétation qui les entoure. L'entretien de la végétation sur cette falaise abrupte orientée vers le nord pose un problème continu.

LANDSCAPE ARCHITECTURE IN THE NATIONAL CAPITAL

by Edward I. Wood

Landscape architecture may be defined as the adaptation of land to its best human use and enjoyment, with particular reference to aesthetics.

In most countries, this principle finds its highest expression in the treatment of the national capital, where the public buildings and national institutions require a setting which will reflect the dignity, beauty and welcome associated with a seat of government.

In Ottawa, the federal government recognized the need for a coordinated, large-scale, long-range program of landscape architecture when, in 1899, Parliament established the Ottawa Improvement Commission (since 1927 known as the Federal District Commission) to cooperate with the city in works of "beautification and improvement".

Since that time, the appearance of the capital at different periods has reflected great changes in the practice of landscape architecture, and not merely

changes in fashion. Comparative photographs of the old and the new reveal, very literally, the transition from the day of the horse and buggy to the age of the automobile. Equally interesting, though perhaps not so apparent to the uninitiated, has been the adaptation of landscape architecture and maintenance to the exigencies of the Canadian climate with, incidentally, an enhancement of results.

When, in 1946, the FDC had added to its responsibilities that of executing the new long-range master plan for the Capital and its 900 square mile district, it was natural that the profession, with its practitioners trained in engineering, architecture and agriculture, should assume a leading role in the project.

The Commission's Division of Landscape Architecture therefore exercises widespread influence. Not only is it responsible for the design of new park areas, landscape construction of all new areas, parks and building groups



F.D.C. Photo

ROCKCLIFFE PARK, looking north across the Ottawa River. Vistas like this create a feeling of great expanse and give pleasure to many people. These openings must be well chosen and continually cleared.

VUE DU PARC ROCKCLIFFE en regardant au nord de la Rivière Ottawa. De semblables échappées de vue dans un aperçu de vastes étendues de terrain plaisent à un grand nombre de personnes. Ces ouvertures doivent être choisies avec soin et constamment entretenues.

and the maintenance of all completed landscape projects, but it is advisor on landscape architecture to the Architectural Committee of the FDC. The landscape architect is a member and secretary of the Parkway Committee for Gatineau Park. In addition he works closely with the Commission's engineering staff and with private architects retained by various government departments and agencies.

The plans for all structures to be erected on land owned or controlled by the Federal government, or for any proposed use of such land, or for projects involving a contribution of federal funds, must be submitted to the FDC for approval. Such plans are presented for prior examination to the FDC Architectural Committee, composed mainly of architect members of the Commission and of the National Capital Planning Committee, which acts in an advisory capacity to the Commission.

The various agencies are advised to present their drawings in the early sketch stages for examination in principle. At a later stage they are examined in detail. Not only are the exterior designs of the buildings care-

fully gone over, but the layouts around them are closely examined.

The relation of the building to the size of the ground plot, the surrounding grades, the roads and paths, freight entrances, and to traffic circulation and parking areas are all studied by the FDC permanent staff. A memorandum covering all points which might be improved upon is prepared for submission, along with the preliminary drawings, to the committee.

Usually, as a new public or departmental building nears completion, the Commission's forces are called in to undertake the landscape construction.

The Commission collaborates with the Design Centre of the National Gallery and others in improving the design of various elements.

GATINEAU PARK

Gatineau Park, which is being developed by the FDC in the beautiful hill and lake country of the Laurentians north and west of Hull, today comprises some 50,000 acres of a planned park area of about 75,000 acres. One of its principal needs is an access



F.D.C. Photo

GATINEAU PARK: LAC PHILIPPE. *Through this natural parkland in the province of Quebec a fifty-mile parkway has been started. It will be noted for its variety of scenery—lakes, forests, meadows, lowlands, swamps, streams, and escarpments. It will be possible to go from the Peace Tower to wilderness in fifteen minutes. The sequence of three lakes, Philippe, Harrington and Meach, each about three miles long, is ideal for bathing, boating, fishing and picnics.*

PARC DE LA GATINEAU: LAC PHILIPPE. *Une route touristique déjà commencée traversera ce vaste parc et atteindra une longueur de 50 milles. Elle sera remarquable par ses paysages variés: lacs, forêts, prairies, plaines basses, marais, ruisseaux et escarpements. On pourra, en partant de la Tour de la Paix, se rendre en pleine forêt en quinze minutes. Les trois lacs en enfilade, les lacs Philippe, Harrington et Meach, mesurent chacun environ trois milles de longueur. L'endroit est idéal pour la baignade, le canotage, la pêche et les pique-niques.*

parkway, and this is now being undertaken by the Commission with the advice of an honorary Gatineau Parkway Committee. In actual operation, the Division of Landscape Architecture works over aerial photos with the engineering department. The route is then examined on the ground, and a centre line is laid out. The committee then meets to examine the proposals.

The problem here is to route the parkway to the finest examples of scenery, but with the least disturbance to the landscape. The objective is variety of scenery balanced over the length of the whole parkway. For example, the parkway will be led through dense woods close to the roadside, then suddenly move into the open to present a broad panoramic view. Occasionally, a vista is sharply defined straight ahead. At other times, thinning of underbrush will allow views through the trees to minor points of interest, such as coloured rock masses (a characteristic of the Laurentian shield), small lakes, streams or open meadows.

Variety also will be achieved by making the best use of the hilly nature of the park. The route will

SIGNS. *Rarely are prohibitions posted. When they are, they are enforced. A map at the side shows the hiker where he is and where to go. Careful wording suggests that he behave himself.*

SIGNALISATION. *Les visiteurs doivent observer strictement les directives affichées le long des routes du parc. Des cartes routières ici et là affichées sur la route indiquent aux passants où ils se trouvent et le chemin qu'ils doivent suivre pour se rendre à un autre endroit. Des notes rédigées avec soin conseillent aux automobilistes de conduire avec prudence.*



LANDSCAPE ARCHITECTURE IN THE NATIONAL CAPITAL

RAILWAY PROBLEM. *Sunken rail lines, at left, are further masked by shrubbery. Careful use of low and tall materials creates a vista from Nicholas Street, on the right, to the spires of Parliament Hill.*

LE PROBLÈME DES VOIES FERRÉES. *Les voies ferrées en contre-bas, à gauche, sont masquées par des arbustes. On voit, à droite, une judicieuse gradation d'arbustes de différentes tailles ouvrant une perspective sur la colline du Parlement.*

FORTUNE LAKE SECTION, GATINEAU PARKWAY

Along a four-mile route from Dunlops on the Meach Lake Road to the top of the escarpment overlooking the Ottawa Valley are the multi-coloured faces of numerous rock cuts.

SECTEUR DU LAC FORTUNE. *Le long d'une route de quatre milles située à partir de Dunlops au carrefour de la route du lac Meach jusqu'au haut de l'escarpement qui surplombe la vallée de l'Ottawa, on admire les massifs rocheux et leurs coupes à couleurs multiples.*



F.D.C. Photo

F.D.C. Photo



sometimes run at low level beside lakes and at other times go high in the hills which look out over the Ottawa Valley. Overlooks and parking areas will be built into the original design. Picnic areas will be so situated as to keep the inevitable litter of such places away from the major scenic spots. Small parking areas will be located so that visitors can leave their cars and walk the numerous hiking trails which intersect the parkway.

The landscape architect will also advise on road types, or classifications, cross sections, grading, erosion control, and types of traffic intersections. As the heavy construction nears completion, the division will take over the actual operation of grading, planting, seeding and vista clearing.

OTTAWA AND HULL

Within the limits of Ottawa and Hull, the Division of Landscape Architecture maintains well over a thousand acres of land at a high standard. The variety between the various areas is surprising, but follows a well thought out policy of landscape architecture in harmony with both the varying architectural style of the public buildings and with the great natural beauty of the Capital's site.

Parliament Hill, as might be expected, demands meticulous work throughout. Even the direction in



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OFFICIAL RESIDENCES

Foreground: the residence of the Prime Minister. Background: the residence of the Governor General. At the upper right, seven acres have been set aside to grow large specimen trees for future use in the National Capital.

DEMEURES OFFICIELLES

Au premier plan, la maison du Premier Ministre. À l'arrière-plan, la résidence du Gouverneur Général. En haut, à droite, sept acres de terrain ont été réservés pour planter de gros arbres qui serviront plus tard aux fins de la capitale nationale.

THE NATIONAL WAR MEMORIAL

Cool masses of green foliage in the centre of the government and business district relieve the monotony of asphalt, concrete and tall buildings.

LE MONUMENT

COMMÉMORATIF NATIONAL
De frais massifs de verdure qui s'élèvent au centre du quartier des édifices du gouvernement et des affaires brisent la monotonie de l'asphalte, du béton et des immeubles de plusieurs étages.

which the lawn mowers cut is important. Large and changing displays of flowers are necessary. From the standpoint of design, these displays are not good, because they call attention to themselves rather than to the Peace Tower. However, public demand keeps them there.

The Centre Block of the Parliament Buildings stands some 170 feet above the Ottawa River. The waterfront slopes are precipitous and therefore subject to continual erosion. From time to time it is necessary to place cribbing on the sides and fill it with topsoil. Into the pockets thus created are planted thousands of small shrubs and trees. This work of soil stabilization is complicated by a rather unusual factor — sulphur fumes from the paper mills directly across the river in Hull. The prevailing winds are westerly, and conifers, desirable because they would give year-round screening of the cliff as well as adjacent government car parking areas, will not grow in sulphur fumes. The lack of sunshine due to the north and east exposure of the Parliament Hill waterfront, plus the high alkalinity of the thin soil, further increases the problems.

The residences of the Governor General and the Prime Minister also are maintained at a very high standard. The landscaping is designed with a view to the outdoor social functions which are a normal part of the life of these two residences, and much attention

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THE MAIN DRIVEWAY

Divided roadways along the Rideau Canal make for pleasant driving. Vistas to points of interest are always maintained. Intersections are few and most abutting houses are screened out. The land has always belonged to the Crown.

SUR LE DRIVEWAY

Le long du canal Rideau, des routes jumelées rendent la circulation facile et agréable. On prend toujours soin de ménager des échappées permettant d'admirer les points de vue intéressants. Il y a peu d'intersections et la plupart des maisons se dissimulent dans le feuillage. Le terrain a toujours appartenu à la Couronne.

F.D.C. Photo

is paid to the choice of individual flowers and, of course, to the preference of the occupants.

The parks vary from the semi-formal to the natural with only necessary improvements.

Rockcliffe Park, comprising a hundred acres, is a large natural park overlooking the Ottawa and Gatineau rivers. It has picnic facilities, open spaces for races and games and pine woods for shade and repose. It is therefore much in demand for group picnics; so much so that it is overused. The problem, therefore, is to maintain the status quo — not an easy job with the feet of hundreds of picnickers constantly packing the soil over the roots of trees accustomed to the softness of a forest floor.

Strathcona Park, on the west bank of the Rideau River, is of the type generally described as the "nursemaid's delight". It is surrounded on three sides by extensive residential areas, with many apartments. With its many shade trees and benches, its pleasant waterfront walk by a bank covered with wild roses, and bright floral displays in the central section, it provides safe and pleasant play space for the young, and pleasant quiet and comfort for the old, away from city streets. For the youngsters, it has a wading pool.

The Commission is concerned, naturally enough in a National Capital, with providing for visitors to Ottawa rather than specially for the city's residents. However,

in some cases the FDC owns or occupies land which would naturally be used for municipal recreation purposes. Where this occurs, the Commission has in some cases cooperated with the cities of Ottawa and Hull by permitting the use of some properties for this purpose. In the case of Strathcona Park, for example, the kiddies' wading pool was built, and is supervised, by the city authorities. On other Commission-owned lands, baseball diamonds and skating rinks are operated by the playground departments of the cities of Ottawa and Hull.

Major's Hill and Nepean Point are informal parks high above the Ottawa River at its junction with the Rideau Canal. They are quiet places, right in the centre of the business district, where visitors can go to view the rivers and enjoy a wide vista of the Gatineau Hills to the north. At the tip of Nepean Point is a parking area from which the whole sweep of the fine architectural composition of the Parliament Buildings and Wellington street may be seen. At night, with the moon behind the building masses, a silhouette of rare beauty is presented.

These two parks are difficult to maintain. They lie upon a formation of solid limestone which is seldom more than two feet from the surface of the soil. Special fertilizing and watering practices are necessary to keep the lawns and trees in good condition.

Dow's Lake Park is a widening of the main FDC Driveway system. It is set between Dow's Lake, a

STRATHCONA PARK:

a Federal District open space on the banks of the Rideau River. Because it is strategically situated for public use, the Commission has cooperated with the city by making available this depression where the Playgrounds Department built and maintains a wading pool.

PARC STRATHCONA:

terrain de la Commission du district fédéral situé sur le bord de la rivière Rideau. L'endroit étant facile d'accès pour le public, la Commission a collaboré avec la ville pour l'aménagement de ce parc en contre-bas où la Division des terrains de jeux a construit une barbotière pour les enfants.

F.D.C. Photo



one-time swamp area, and a large neighbourhood of middle to low class housing. Hence it serves many people who are without cars but who come on foot or by bus. Breezes from the lake and shade make it a pleasant place on the hottest summer day. A boathouse takes care of rentals, mooring for boats and refreshments.

Bate Island is midway on the Champlain Bridges which span the Ottawa in the west end. Around a restaurant are parking places for over a hundred cars. Benches are placed under the trees, and looking out over the water, these areas are most attractive in the evening. Young people are encouraged to park here. They must leave on their parking lights and the cars are discreetly surveyed at frequent intervals by the Royal Canadian Mounted Police, who patrol the Commission's parks and driveways. It is a safe place for teen-agers and keeps them off the back roads.

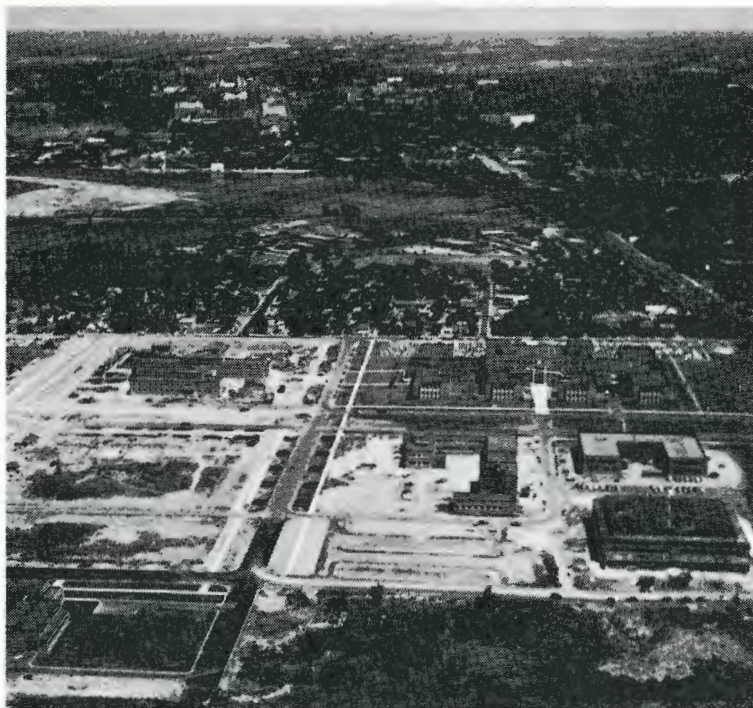
THE DRIVEWAYS

The main driveways, about twenty-six miles in extent, are long narrow strips of land through which motor roads run. They cannot be termed parkways because of the frequent access allowed to them. At one time they were pleasant to stroll along or to sit in but the traffic is now so heavy that the continued 'whish whish' of passing cars, added to the exhaust fumes, has greatly

reduced the peaceful freshness. Somewhat to the detriment of the abutting property holders, but for the good of the greatest number of users, as much of the driveway boundary as possible is being planted in order that the motorist may have the illusion of passing through a park without distraction. This, together with the feature of the water in the Rideau Canal, makes the Driveway a pleasant one for motorists, particularly tourists, for as they arrive in the Capital, they are led naturally and easily to the Parliament Buildings.

On the Hull side of the Ottawa River, from the Interprovincial Bridge to Brewery Creek, buildings have been demolished and grading operations, followed by the establishment of turf and some planting, have contributed to the foundation of parc Jacques Cartier. Parking overlooks have made available excellent views to Parliament Hill and up and down the Ottawa River. Until the new bridge crosses the Ottawa to replace the present one the operations here will be largely confined to maintaining the land as it is.

In the vicinity of the two cities, several thousand acres of land have been purchased for future development. In the meantime, having in mind all the neighbours, the lands must be maintained free from weeds and the fire hazard kept under control.



TUNNEY'S PASTURE. *A group of government buildings rapidly nearing completion. Layout provides for good traffic circulation, adequate parking in the rear and breathing space between buildings. It can be appreciated that six to eight foot nursery trees would be out of scale for many years on a site like this. Architects, landscape architects and town planners worked on this site plan. Several sites of this nature are being developed. The keynote is decentralisation of office staff from crowded centre town.*

TUNNEY'S PASTURE. *La construction d'un groupe d'édifices du Gouvernement sur ce terrain est presque terminée. On a pourvu à la libre circulation des automobiles et on a aménagé des terrains de stationnement en arrière des immeubles. On a aussi laissé beaucoup d'espace entre les édifices. On conviendra que des arbres de pépinière, ne mesurant que six ou huit pieds de hauteur, resteraient disproportionnés pendant plusieurs années sur un terrain de ce genre. Des architectes, des architectes paysagistes et des urbanistes ont participé à la préparation des plans. Plusieurs autres emplacements de ce genre sont en voie d'aménagement. Le but principal est de décentraliser le personnel de bureau du centre de la ville qui est maintenant congestionné.*

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PUBLIC BUILDINGS

The grounds surrounding government buildings are a completely different problem. The examination of site plans has already been touched upon. After that, the work of the landscape architect is largely restrained.

Scale is all-important. The height and bulk of the buildings are such that little trees and the usual horticultural foundation plantings are entirely out of place. Large trees and spacious open lawns make for simplicity and dominance of the structures. Often the use of foliage masses can accentuate architectural features or improve the apparent proportions of a building.

When finished, there should be no feeling that a landscape architect has ever been there.

In front of older, run-down buildings and in front of the newer factory type of buildings some bright flowers may be used to draw attention to themselves and away from the building.

Too many commercial and public buildings are adorned by well-meaning gardeners with distracting floral colour and cluttered, meaningless plants. Some of them bring to mind a beautiful lady in a sophisticated evening gown, around whose neck a daisy chain has been loosely thrown.

It is evident from observation in various parts of the country that little thought has been given to the design of grounds around large public buildings. Too often the architect produces a beautiful structure to have it spoiled by parked cars, ungainly planting and awkward

lines of roadways, with poor grading disrupting the outlines of his building.

We still see half moon driveways blocked by poorly parked vehicles. We still see highlights and garish colours on cars parked in front of well-designed doors. We still see tortured terraces which have no meaning. We still see too narrow walks with rectangular intersections placed too close to the buildings. From a practical point of view, we still see traffic design based on what the public should do rather than what it will do.

TREES

In order to obtain large specimen trees, it is necessary to go as far afield as sixty miles. Future requirements will be so great that the Commission has set up a nursery for their production. No propagation is carried out, and all of the current needs are purchased from commercial growers.

Thousands of trees are widely spaced in rows to allow good branching to take place. When these trees have reached four inches in diameter, every second one will be moved to final locations. The remainder will be allowed to reach larger size. A succession of annual plantings will ensure a continuous supply.

PICNIC FACILITIES

One of the greatest needs of the day is to find a place for the family car to stop once it has left the city's built up areas. Adequate parking, water and sanitary services are necessary. Picnicking is the most popular form of park use in Canada. It is a wholesome

HEAD OFFICE, CENTRAL MORTGAGE AND HOUSING CORPORATION, OTTAWA. The absence of complicated foundation planting makes for simplicity. Wide open lawns and a few trees make a setting and frame for the facade.



Photo: Saul Gosewitz

LE BUREAU PRINCIPAL DE LA SOCIÉTÉ CENTRALE D'HYPOTHÈQUES ET DE LOGEMENT. L'absence de plantations compliquées destinées à dissimuler les fondations ajoute une note de simplicité autour de l'édifice.

GENERAL PLAN (lower right). The building is set 180 feet back from the Montreal Road so that screening against heavy traffic is possible. Traffic entrances to the main highway are well separated. Its setback from the Parkway allows open lawns and trees which create a frame. A wide promenade and shade under the trees create pleasant surroundings for the staff at lunch time. There is complete circulation around the building but cars do not cross close to its front. Employee parking and freight entrances are at the rear. Visitors' parking is at the side. Walks are spaced out from the building in good proportion to the mass of the structure.

PLAN D'ENSEMBLE (au-dessous). L'édifice a été érigé à 180 pieds du chemin de Montréal, afin qu'il soit protégé le plus possible contre les inconvénients de la circulation intense. En raison de son éloignement de la grande route, il est possible d'entourer cet immeuble de pelouses et d'arbres. Les voitures peuvent circuler autour de la bâtisse, sans toute fois passer à proximité de la façade. Les entrées de service se trouvent en arrière ainsi que le terrain de stationnement pour les employés. Celui des visiteurs est sur le côté. Des allées partent de l'immeuble à des intervalles proportionnés à la masse de la construction.

recreation in which the entire family gets together, and the problem of who is to use the family car is solved.

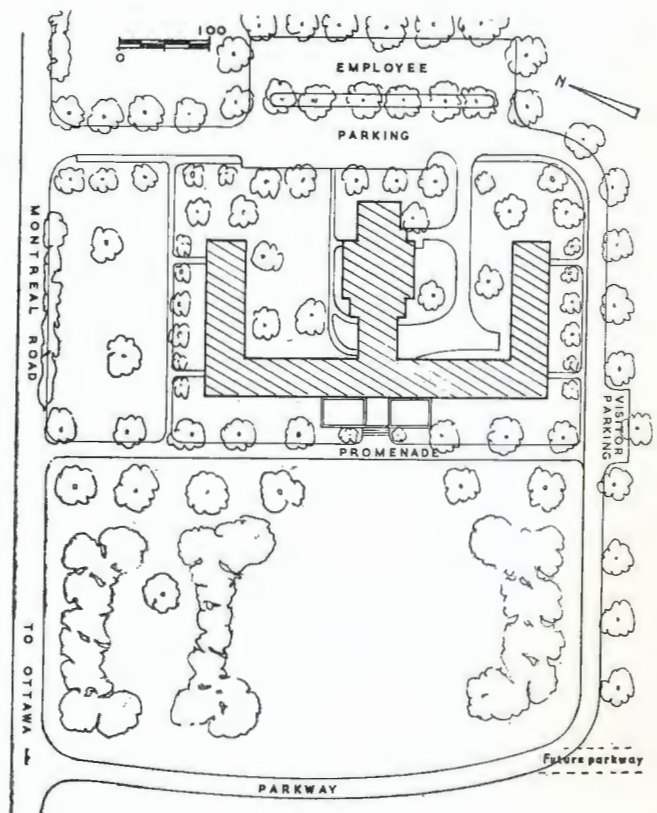
Perhaps the most important social function of each government department during the year is the annual picnic. The closest serviced area, big enough to take care of the sixteen to eighteen hundred people who attend these picnics, is some thirty-five miles away.

For that reason, the Commission's newest project is the development of Hog's Back as a general recreation and picnic ground. It is on the Rideau River and Canal within the city limits and can be reached from downtown on four miles of main traffic arteries.

Several large buildings, housing thousands of government workers, are being erected on land adjoining this park. The new home of the Civil Service Recreation Association is nearby.

Water features provide a lake at Mooney's Bay on the Rideau River for aquatic sports; a falls and a fast running stream on the Rideau River for scenery. Rolling country with flat lands provides open spaces for sports and wooded shade for picnic tables.

This year sufficient progress was made to open large sections of Hog's Back Park to the public. A refreshment pavilion and rest rooms were erected near the beach. Trails were opened by the Rideau River and along the ridge to overlooks which present vistas across



LANDSCAPE ARCHITECTURE IN THE NATIONAL CAPITAL

the country to Parliament Hill. Benches and rest spots were made available.

Immediately beside the pavilion, but screened from it, a twenty-five-stall parking area with a twenty-minute limit was built. Somewhat to the rear, and well masked, an area capable of taking a hundred cars was constructed.

THE MACKENZIE KING ESTATE

The late Mackenzie King, as a young civil servant and as a statesman, acquired over the years about six hundred acres in the Gatineau Hills at Kingsmere. Under his personal supervision, trails were built and vistas cut. Clearings were opened and plantations were made. The main features are the summer cottage at Moorside, the Farmhouse, where he stayed mostly, and the ruins which he built of stone from historic buildings in Ottawa, London, England, and other places. While Mr. King had some technical assistance in this work, his own landscape talent was of a high professional order. In fact he was elected an honorary member of the Canadian Society of Landscape Architects.

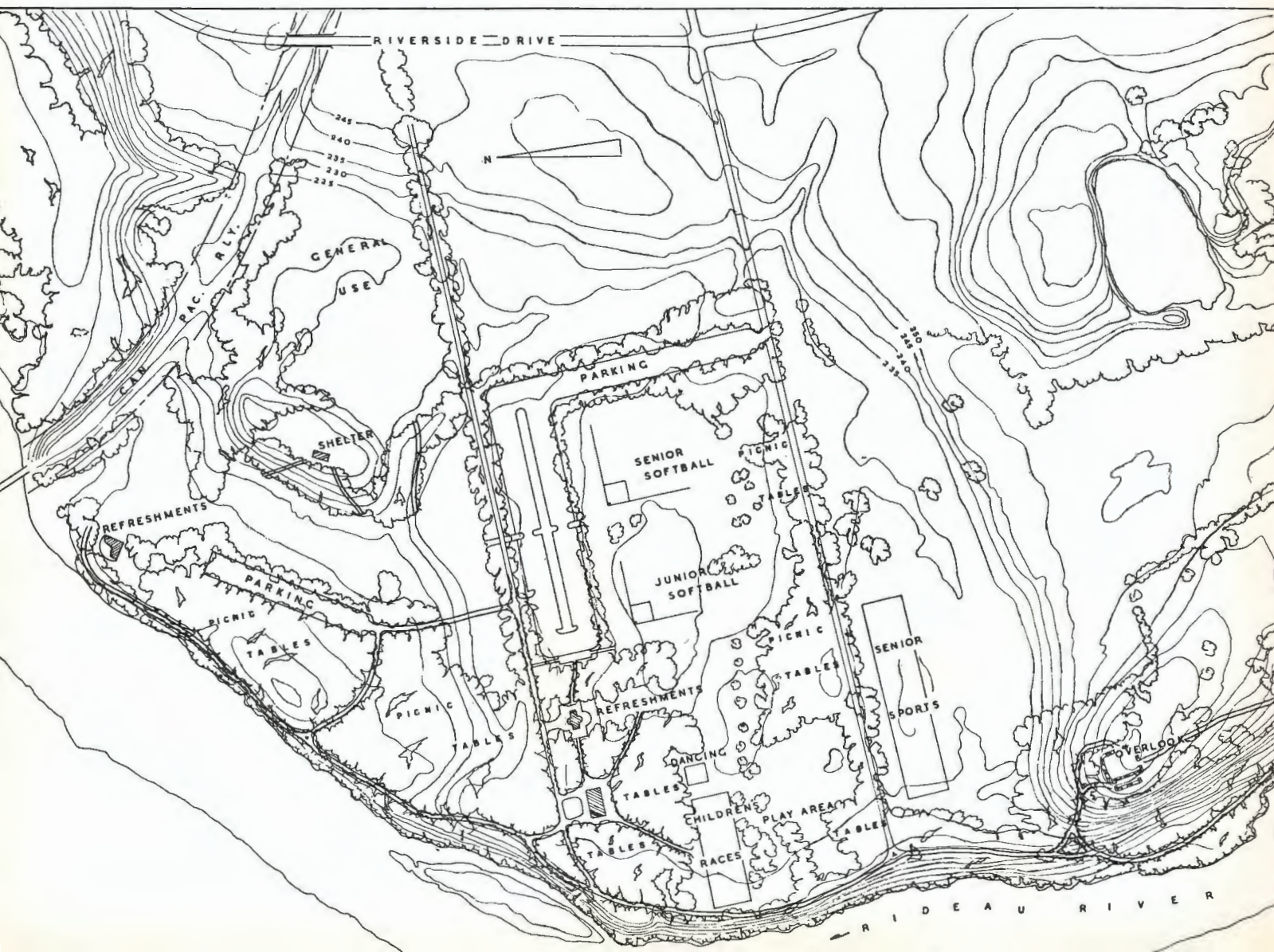
At his death, his Kingsmere properties were deeded to the nation and entrusted to the Commission for maintenance.

The properties are open to the general public and are visited by thousands each year. During the autumn colour season, the parking fields, accommodating two hundred and fifty cars, are scarcely adequate.

In midsummer, Moorside cottage is made available to the Drama Section of the Festival of the Arts. Several nights a week, capacity audiences watch first-rate performers under the stars.

The Mackenzie King Estate must be handled in such a way that the public will be well taken care of. At the same time the work of the late Prime Minister must be preserved in its original state. Routes are marked to points of interest, and attendants will answer questions. Tablets give an historical résumé.

Picnics or other activities which clutter the landscape or cause muss are not permitted. Facilities for these are provided nearby. The trails are kept clear and the vistas open. The bordering forest, ever-ready to close

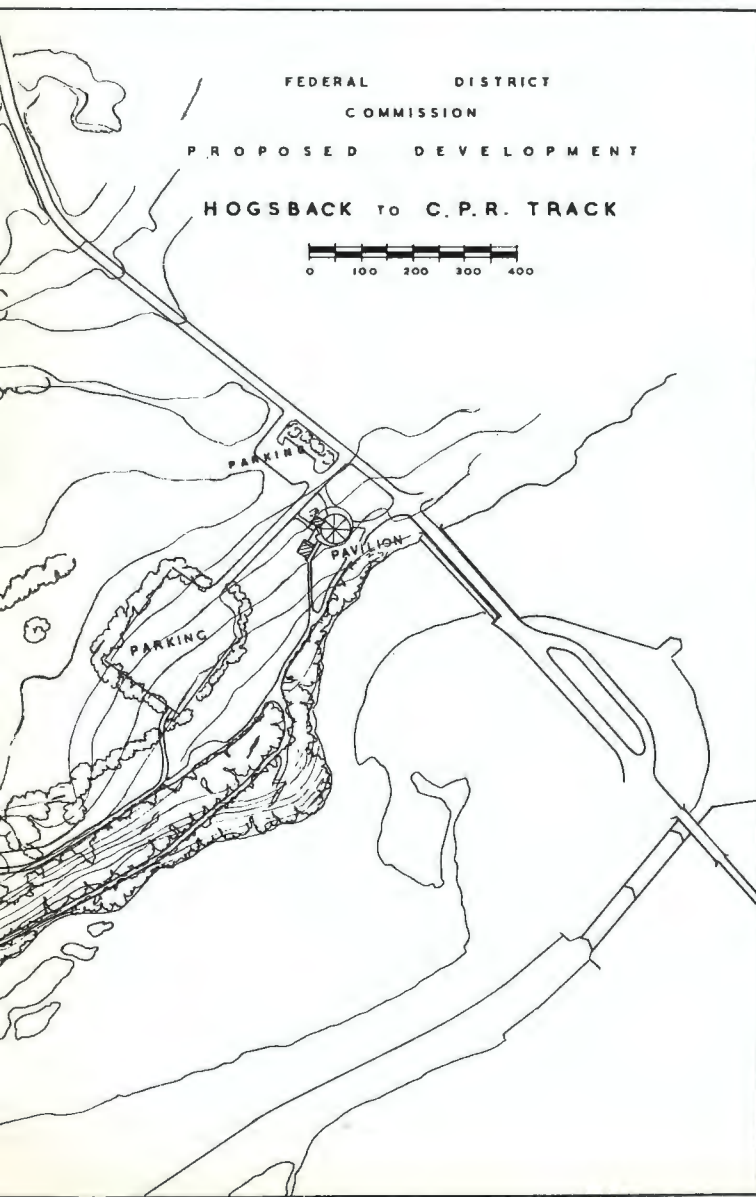


HOG'S BACK PAVILION, designed by Abra and Balharrie for the F.D.C., refutes the charge that government architecture must be dull. Umbrella colours are coral, cream, apple green and sky blue. Flowers are pure white. Note the specially-designed apple green trash cans and flat topped benches. There are wide inviting paths, flanked by low broad hedges. Adequate parking is close by, but screened. Architect and landscape architect collaborated.

LE PAVILLON DU PARC DE HOG'S BACK, projeté par Abra et Balharrie, détruit le préjugé trop répandu que l'architecture gouvernementale doit être nécessairement terne. Le grand parasol est de diverses couleurs: corail, crème, vert pomme et bleu ciel. Toutes les fleurs sont d'un blanc pur. Remarquez bien les boîtes à rebuts et les bancs couleur vert pomme. Des sentiers larges et accueillants, bordés de petites haies massives, servent de guides au public. Il y a, tout près, un terrain de stationnement dissimulé dans la verdure. Ici encore il y a eu collaboration entre l'architecte et l'architecte paysagiste.

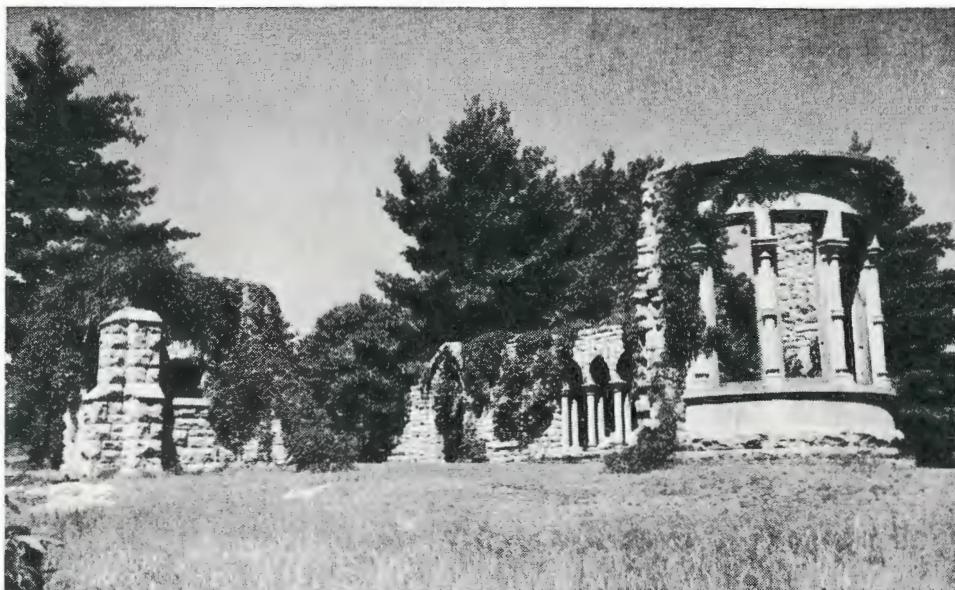


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HOG'S BACK: PICNIC AREA. Open meadows and wooded areas, combined with running and still water, make this an ideal picnic area. A break in grade north of the parking area is a natural separation between family and departmental picnics. Parking gets into the heart of the area without breaking the effectiveness of any of the open spaces. The bus station doubles as general shelter. Pavilion and rest rooms serve both types of picnics. New features will be a simple smooth, concrete slab at ground level for square dancing and a mother's room for bottle heating and diaper changing. For safety, existing roads become trails only. All motor movement is confined to parking space.

HOG'S BACK: ENDROIT IDÉAL POUR LES PIQUE-NIQUES. Les prés et les espaces boisés entourés d'eau font de ce secteur un endroit très propice pour les pique-niques. Il existe, au nord de l'espace réservé au stationnement, une déclivité du terrain qui constitue une séparation naturelle entre la section destinée aux pique-niques de famille et la section réservée aux pique-niques des divers ministères. Il y a des endroits de stationnement jusqu'au centre de l'immense terrain sans que cela nuise à l'usage qu'on peut faire des clairières du parc. Le terminus des autobus sert en même temps d'abri général. Le pavillon-restaurant et les chalets sont à la disposition des deux catégories de pique-niqueurs. Les prochaines innovations comprendront une plate-forme en béton, au ras du sol, pour les danses populaires et en une pièce où les mamans pourront faire chauffer du lait et procéder à la toilette de leur bébés. Sous les tables, il y aura une couche d'asphalte. Les chemins existants deviendront des sentiers pour les piétons et toute la circulation motrice sera limitée aux terrains de stationnement.



MACKENZIE KING ESTATE
"The Ruins" at Kingsmere. Some of these stones came from the Parliament Buildings at Westminster. From the great bay window there is a view for many miles over sloping meadows and across the Ottawa River to Ontario.

DOMAINE MACKENZIE KING
Les "Ruines", à Kingsmere. Quelques-unes de ces pierres ont été apportées des édifices du Parlement de Westminster. De la grande fenêtre en saillie, la vue s'étend à plusieurs milles sur des prairies qui descendent en pente douce et par-delà la rivière Ottawa, vers l'Ontario.

F.D.C. Photo

in on the meadows, is carefully checked. Fencing, painting, grass cutting and routine operations keep the estate in order.

FLORAL DISPLAYS

The floral displays of the Commission, particularly those of flowering bulbs, have become world famous.

Before the war, over 250,000 plants were produced. The bulk were expensive *achyranthus*, *alternanthera*, *santolina*, *echeveria*, *coleus*, and all their cousins, which had to be carried over the long cold winter in greenhouses. During the war all of the heated glass was closed down and, at the end, the twelve ranges in poorest condition were demolished. Since then, only annual flowers are produced and the remaining three houses are not opened until well on in March, when the friendly sun begins to shine and heating costs go down. The houses are closed the first week in June. Only about sixty thousand plants are produced, mainly *petunias*, *zinnias*, *begonias*, *stocks*, *phlox*, *salvia*, *portulaca* and sweet *alyssum*, but the credit received by the Commission for the flower shows along the driveways has multiplied. The costs of maintenance of the displays in the parks has gone down. Any park system spending large sums for greenhouse construction or maintenance is living in a bygone age.

In order to produce these results it is necessary to bring into play all the principles of design: proportion, repetition, sequence, balance, contrast, harmony, dominance and many others.

To begin with, it was possible to make the average spacing fifteen inches apart for annuals as opposed to six inches for the foliage plants. All the old beds cut in lawns in the shape of stars, crescents, and crowns were deleted and returned to uninterrupted sod. The few that are left were enlarged to make them count.

The remainder of the colour was removed to the outside and to borders where it will have a good background. Wherever possible, the displays are put on banks at curves in the roads where they can be seen effectively from long distances. Undulations are introduced into the larger beds.

With few exceptions, only clear colours are used. Fancy, many-coloured blooms were discarded. One or, at the most, two colours are made dominant. This dominance is carried out in location, brilliance and quantity. All the remaining parts of the display are designed to support its leading actors.

Having in mind that most people see these displays from cars, the quantities used are large. For instance, one tulip display has fifty thousand blooms. The dominant variety in that display has one area of forty-five hundred flowers. The results are spectacular.

ADMINISTRATION, CONSTRUCTION AND MAINTENANCE

Until the city took over the job a few years ago, the FDC landscape architect was responsible for the removal of garbage and refuse from all government buildings, a task of doubtful distinction. He still directs the snow removal operations.

Although this may appear odd on the surface, it works well. The Commission's policy is not to purchase any equipment which cannot be used the year 'round. Hence tractors, trucks and other automatic units are ordered having regard for winter use, summer use and general adaptability. The tractors which carry the plows and snow blowers in winter, cut grass, plow fields, grade earth and haul miscellaneous equipment in summer. The men who work on summer operations shovel snow,

sand walks and clear steps of public buildings in winter-time. Thus the best of labour is retained the year 'round. The Division of Landscape Architecture has a permanent staff of 250, and hires another 100 temporary workmen for summer maintenance. The permanent staff, incidentally, includes four graduates in landscape horticulture, all trained in Canada, and one of these is at present on leave taking a course in landscape architecture at the Graduate School of Design at Harvard University.

With snow removal under his control, the Landscape Architect gains practical experience in the effects of large plows and snow blowers on landscaping. He therefore quickly learns how to design his areas for maximum winter efficiency without damage, at the same time creating attractive effects along the driveways.

THE MASTER PLAN

While the landscape architecture of Ottawa has developed on a large scale over the past half century, it is due for much greater development under the new Master Plan for the Capital and its region. The park areas will be increased, and the existing 26 miles of driveways will be extended by approximately 40 miles

of new urban parkways in Ottawa and Hull. The new projects will add about 4,000 acres of new open space to the Capital's urban area. Incidentally, practically all the necessary land for these additions has been obtained by the FDC, though it will be many years before construction is completed.

It is not possible to plan parks and driveways piecemeal, of course. They must form part of an overall open space plan, and this in turn must form part of the comprehensive master plan to guide every aspect of redevelopment and expansion of the urban area. In Ottawa's case, the master plan is based on a complete relocation of the railways, removing them from the central areas to the outskirts. Some of the future parkways will be built on what are today railway rights-of-way.

While the future landscape architecture of the Capital is important, it is only a part of the overall plan, and the close collaboration of the Division of Landscape Architecture with the Engineering, Planning and other branches of the FDC, as well as, of course, with outside agencies and authorities, is essential for the successful implementation of the large scale, long range undertaking which the National Capital Plan represents.

THE AUTHOR

A native of Ottawa, Mr. Edward I. Wood received his B.S.A. degree at the University of Toronto in 1929 and from 1931 to 1933 did postgraduate work at Harvard University School of Design and in 1937 at Cornell University Department of Regional Planning, following which he studied the park systems, state parks and parkway design in England and the United States. He built golf courses at Banff, Alberta; Digby, Nova Scotia; Moncton, N.B.; Toronto; and Jamaica, British West Indies.

In 1932 he did archaeological research in Virginia on landscape design during the early slave days including the estates of Robert E. Lee, Thomas Jefferson, King Carter, James Madison and the University of Virginia.

Mr. Wood has designed real estate subdivisions, entrances, parking areas, sport fields and landscape settings for a number of institutions, public buildings and industrial plants; he has also collaborated with architects and engineers in the location and design of parkways, approaches to bridges and avenues of main city streets. He was appointed Landscape Architect to the Federal District Commission in 1934.

Mr. Wood is a member of the Parks and Recreation Association of Canada and a past-president of the Canadian Society of Landscape Architects.

L'Architecture paysagiste dans la capitale nationale

abrégé de l'article de M. E. I. Wood, architecte paysagiste de la Commission du district fédéral

En 1899, le Parlement a créé la Commission du district fédéral et l'a chargée de l'exécution du programme d'architecture paysagiste de la capitale nationale. En raison du développement de la Capitale au cours du dernier demi-siècle, le travail de la Commission a augmenté graduellement et celle-ci a vu s'ajouter à ses attributions la tâche de mettre à exécution le programme d'aménagement progressif d'Ottawa et d'un territoire de 900 milles carrés du district de la capitale nationale, d'après le plan directeur préparé, entre 1945 et 1950, par M. Jacques Gréber, l'éminent urbaniste français.

Il était naturel que l'urbanisme, avec ses spécialités en génie, en architecture et en jardinage, fût appelé à jouer un rôle de premier plan dans la réalisation du projet d'aménagement de la capitale nationale, et la Division de l'architecture paysagiste de la Commission exerce, par conséquent, une influence très étendue. Elle est chargée de dessiner les plans des nouveaux parcs et d'établir les normes à suivre en fait d'architecture paysagiste pour les nouveaux districts urbains, les nouveaux parcs, les nouvelles routes de promenade et les nouveaux groupes



F.D.C. Photo by Frank Royal

SUR LA COLLINE DU PARLEMENT. Des massifs de fleurs aux teintes harmonieuses constituent un brillant décor au début du printemps. Quand les petites tulipes précoces sont fanées, des plantes plus hautes, à l'arrière plan, fleurissent à leur tour, étalant leurs fleurs plus tardives. Au point de vue paysagiste, cet arrangement floral est fautif, car le regard du visiteur est dirigé vers cette masse de couleurs plutôt que vers la Tour de la Paix qu'est le vrai centre d'attraction. On garde cette décoration florale, parce qu'elle répond aux désirs du public.

PARLIAMENT HILL. Massed displays of harmonizing colours form an early season bright spot. As the low early tulips in front pass by, tall late blooms take their place in the background. From the standpoint of design, this display is all wrong. The setting renders the colours startling and the visitor's eye is caught by the blooms rather than the Peace Tower. Public demand keeps the show there.

de construction. Elle est aussi chargée d'assurer le maintien de l'apparence esthétique de tous les projets complètement réalisés.

Les plans de toutes les constructions qu'on projette d'ériger sur des terrains possédés ou régis par le gouvernement fédéral, doivent être soumis à l'approbation de la Commission du district fédéral. Le Comité d'architecture de la Commission, composé d'architectes canadiens distingués, examine au point de vue professionnel les plans qui lui sont soumis et fait ensuite ses recommandations à la Commission sur les particularités des plans. La Division est aussi chargée de conseiller le Comité sur les questions d'architecture paysagiste, et elle examine avec soin les projets de construction en ce qui concerne l'étendue du terrain, les talus environnants, les chemins et les sentiers, les entrées de service, la circulation et les terrains de stationnement.

Dans les limites d'Ottawa et de Hull, le Service de l'architecture paysagiste entretient de façon extrêmement soignée plus de mille acres de terre et quelque vingt-six milles de réseau routier. Il y a une grande variété dans le style adopté pour les diverses sections de ce domaine confié aux soins du Service, mais celui-ci suit un programme bien défini d'embellissement qui s'harmonise avec les divers styles d'architecture des édifices publics et la grande beauté naturelle du site de la capitale nationale. La colline du Parlement, comme on le suppose bien, exige un entretien méticuleux. Tout a son importance, même le sens dans lequel on tond le gazon. La demeure du Gouverneur Général et celle du Premier

Ministre sont entretenues d'une façon extrêmement soignée.

Il y a divers genres de parcs, depuis les parcs semi-réguliers jusqu'aux parcs naturels dans lesquels on ne fait que les améliorations indispensables. Le parc de Rockcliffe, d'une superficie de 100 acres, qui domine les rivières Ottawa et Gatineau, contient des coins propices pour les pique-niques, mais il est beaucoup trop fréquenté.

Le parc de Hog's Back, site pittoresque de cent cinquante acres situé sur la rivière et le canal Rideau, dans les limites de la ville, a été récemment aménagé en terrain d'amusements variés et pourra servir pour les pique-niques des employés des divers ministères du gouvernement. Il y a de l'eau en abondance pour les sports aquatiques; une petite chute et le cours rapide de la rivière Rideau embellissent le paysage. Le terrain tantôt plat tantôt accidenté offre tous les avantages requis pour les sports en plein air et une épaisse ramure couvre de son ombre les tables de pique-nique. De larges sections du parcs et des installations, y compris un pavillon-restaurant, deux terrains de stationnement, des sentiers et des postes d'observation, ont été ouverts au public l'an dernier. On a aussi installé des bancs et aménagé des endroits de repos à travers le parc.

Un bon exemple d'un parc semi-régulier est le parc Strathcona, situé sur la rive ouest de la rivière Rideau. Il est borné, sur trois côtés, par de vastes quartiers d'habitations. Avec ses arbres ombrageux, ses bancs, sa superbe promenade et une barbotière pour les bambins, il appartient à la catégorie des parcs qu'on désigne

ordinairement sous le nom de "paradis des bonnes d'enfants".

La Commission possède à Ottawa et à Hull des terrains qui sont manifestement propices à répondre aux besoins de la population locale pour fins de récréation. Dans ces cas, la Commission collabore avec les autorités municipales en permettant l'emploi de quelques propriétés pour certaines fins, comme, par exemple, la barbotière construite dans le parc Strathcona. Les services des terrains de jeu des villes d'Ottawa et de Hull sont chargés de l'érection et de la surveillance des patinoires et des terrains de baseball.

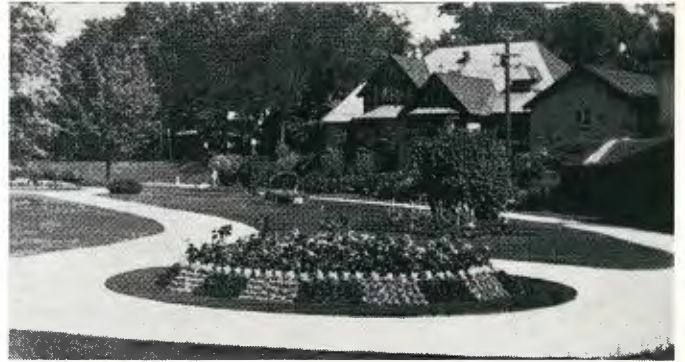
Le parc Major et la pointe Nepean sont des endroits tranquilles et absolument naturels situés au centre même des affaires, où on peut aller se reposer en contemplant la rivière et une large vue des collines de la Gatineau vers le nord. À l'extrémité de la pointe Nepean il y a un endroit de stationnement d'où on peut voir se détacher sur le ciel le groupe imposant des édifices du Parlement.

Le parc du lac Dow, qui était autrefois un marécage, est un élargissement de l'artère principale du Driveway, et présente une vue magnifique du lac Dow; tandis que l'île Bate est située entre les ponts Champlain qui relient les deux rives de l'Ottawa, à l'ouest de la ville. Il y a là, autour d'un restaurant, des terrains de stationnement et des bancs installés sous les arbres, et cet endroit domine les flots de l'Ottawa.

Le Driveway, d'une longueur d'environ vingt-six milles, est une longue lisière de terrain au milieu de laquelle passe une voie carrossable. Le Driveway longe le canal Rideau. Il est très agréable de s'y promener, mais la circulation y est maintenant si dense que le sifflement continu des automobiles allant à toute vitesse et les vapeurs d'essence qui s'en échappent ont grandement diminué le charme et la fraîcheur pour les piétons.

Du côté québécois de la rivière Ottawa, depuis le pont Interprovincial jusqu'au ruisseau de la Brasserie, on a procédé à des démolitions et les travaux de nivellement et de gazonnement ainsi que des plantations d'arbres ont abouti à l'aménagement du joli parc Jacques Cartier. On a ouvert à la circulation les deux premiers milles de la nouvelle promenade du Lac des Fées, à Hull-ouest.

Le parc de la Gatineau, le plus grand des parcs de la Commission, fait partie intégrante du Plan de la capitale nationale. Il est situé dans la magnifique région de collines et de lacs des Laurentides, au nord et à l'ouest de Hull. Jusqu'ici, la Commission a acheté plus de deux-tiers des 75,000 acres qu'on se propose d'acquérir; et a aménagé plusieurs emplacements pour de grands et de petits pique-niques en plus des lieux de récréation. Les sentiers de tourisme à pied, les plages, les sites de camping et les excellentes pistes de ski qui s'y trouvent font de ce parc un endroit idéal de récréation, aussi bien en été qu'en hiver.



PLATES-BANDES FLEURIES. *Voici un vestige d'une époque révolue où les gens admiraient les dessins compliqués de ce genre de tapisserie florale (environ 1938). Notez la grande variété des plantes. Pensez à ce qu'il en coûtait pour les faire pousser en serre, pour les transplanter et pour entretenir les plates-bandes durant l'été. Le résultat de tant d'efforts est un mélémélo de couleurs criardes. Notez le panier de bouleau.*

FLOWER BEDS. *This F.D.C. display of about 1938 shows how styles have changed. Intricate carpet bedding was fashionable in days when wages were low and public taste was different. Note the large number of plants and consider the cost of growing them under glass, the cost of planting them and the cost of maintaining the beds all summer. The result is a confusing hodge-podge of colour. Note the birch basket.*

Un besoin urgent du Parc de la Gatineau est une promenade rendant l'accès facile pour les touristes. La Commission répond à ce besoin en entreprenant la construction d'une partie de la promenade projetée de la Gatineau et elle est assistée dans l'aménagement de cette entreprise par le Comité consultatif du Parc de la Gatineau. Cette promenade formera une boucle d'environ trente-cinq milles à travers le parc. Le problème qui se pose, c'est de faire passer la route projetée par les plus beaux sites sans nuire au paysage. Le plan pourvoit à l'établissement de plusieurs postes d'observation et de parcs de stationnement ainsi qu'à des terrains de pique-niques qui seront situés là où les débris qu'on y rencontre inévitablement n'enlèveront rien à la beauté des endroits scéniques les plus importants.

L'une des principales attractions du parc est le domaine Mackenzie King, propriété que l'ancien premier ministre a léguée à la nation et dont l'entretien a été confié à la Commission.

Depuis une dizaine d'années, les magnifiques et nombreuses décorations florales de la Commission se sont attirées une renommée internationale.

D'importants changements se sont opérés dans les parterres de la Commission relativement au choix des fleurs et à la disposition des plates-bandes. Avant la seconde guerre mondiale, on cultivait environ 250,000 plantes: c'était surtout des achyranthes, des alternan-

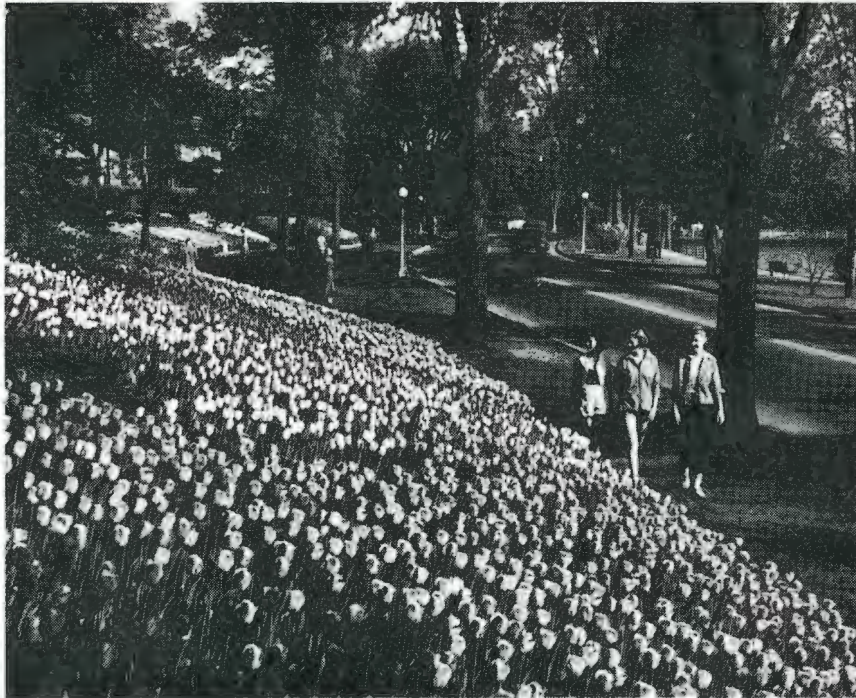


Photo: Malak, Ottawa

SUR LE DRIVEWAY. Des massifs de fleurs aux couleurs éclatantes décorent les courbes de la promenade et font l'enchantement des milliers d'automobilistes qui y passent chaque jour. Cette floraison précoce de plantes bulbeuses attire des visiteurs de toutes les parties du pays et des Etats-Unis et ajoute un mois entier à notre saison touristique.

THE DRIVEWAY. Masses of bright colours banked along curves of the roadways delight the thousands of motorists who pass by daily. The use of early flowering bulbs has proven a major attraction for people from other parts of Canada and the United States. The tourist season has been extended by a month.

thères, des santolines, des échevériés, des coléus, des géraniums et toutes les espèces semblables qu'il fallait conserver dans des serres pendant les mois d'hiver. On ne produit maintenant que 60,000 plantes par année: ce sont principalement des pétunias, des zinnias, des bégonias, des giroflées, des phlox, des salvias, des portulacas et des alysses qui, en tout, n'emploient que trois serres. Ces serres sont chauffées de la fin de mars au début de juin. La Commission s'attire plus d'éloges pour ses plantations de fleurs aujourd'hui qu'elle recevait à la suite des nombreuses variétés qu'elle cultivait avant la guerre, et le coût de l'entretien a beaucoup diminué. Toute organisation qui dépense des sommes considérables à la construction de parcs et à la construction et l'entretien de serres n'est pas à la page.

Pour produire les excellents résultats dont nous avons parlé, il faut appliquer tous les principes de la floriculture paysagiste: la proportion, la répétition, la succession des couleurs, l'équilibre, le contraste, l'harmonie, la prédominance de certaines couleurs et plusieurs autres principes.

Tout d'abord, il est possible de planter les fleurs annuelles à une distance de quinze pouces l'une de l'autre au lieu de s'en tenir à l'intervalle de six pouces qu'il faut observer pour les plantes à feuillage. On a fait disparaître des parterres toutes les plates-bandes en forme d'étoiles, de croissants et de couronnes pour les remplacer par du gazon. Celles qui ont été conservées ont été agrandies pour qu'elles aient une réelle importance.

Le reste des couleurs a été reporté sur la bordure ou

à l'extérieur des parcs, là où les couleurs auront un fond qui les fera bien ressortir. Partout où la chose est possible, les plates-bandes sont aménagées sur des talus aux endroits où le chemin fait une courbe de façon à ce qu'on puisse les voir de loin. Pour les plates-bandes assez considérables, on emploie des procédés qui donnent l'illusion d'une ondulation.

Presque sans exception, on n'emploie que des fleurs unicolores, de sorte qu'une seule couleur, ou deux au plus, dominent les autres. On adhère à ce principe dans les plates-bandes par l'éclat de la couleur et la quantité des fleurs. Toutes les autres fleurs du groupe ne sont là que pour faire ressortir l'éclat des vedettes.

Etant donné que le plus grand nombre de ceux qui jouissent du spectacle floral se promènent en voiture, il faut que les plates-bandes contiennent une grande quantité de fleurs. Il y en a une, par exemple, de 50,000 tulipes dont la variété dominante se compose d'un groupe de 4,500 fleurs.

Les résultats sont vraiment merveilleux.

L'entretien des terrains qui entourent les édifices du gouvernement présente un problème tout différent de celui de l'aménagement des parcs et des promenades. Ici la proportion entre les plantations et les édifices est d'une importance majeure. Etant donné la hauteur et la masse de ces édifices, il ne peut être question de planter de petits arbres et de l'ornementation végétale ordinaire destinée simplement à dissimuler les fondations. De grands arbres et des étendues de pelouse nue sont de bon goût et font ressortir les beautés architecturales de

LES JONQUILLES DU PARC ROCKCLIFFE

Voici un échantillon de la profusion de fleurs qui s'épanouissent sur le gazon et parmi les arbres et donnant l'impression d'avoir poussé naturellement. Il suffit d'un spectacle comme celui-ci pour que les automobilistes descendent de leur voiture et fassent une promenade à pied. À l'arrière-plan, on aperçoit les rocailles de la Commission, où se trouvent les tulipes tardives et autres fleurs annuelles qui fleuriront quand les jonquelles auront disparu.

DAFFODILS IN ROCKCLIFFE PARK. *These are part of about a million blooms scattered seemingly at random through the grass and trees. Many are replants from old beds elsewhere. Currently thousands are being removed for use in new locations each year. This show is a strong enough drawing card to get people out of their cars for a walk—an achievement in itself. In the background are the Commission's Rockeries, where late tulips and annuals will take over when the daffodils have waned.*



Photo: Malak, Ottawa

l'édifice. Souvent on a recours à de grandes masses de feuillage pour améliorer l'apparence des proportions des édifices. Quand l'ornementation est terminée, jamais on ne doit soupçonner que la beauté de l'ensemble dépend de l'architecte paysagiste.

Ce genre d'architecture paysagiste a besoin d'arbres de grandes dimensions et, souvent, il faut aller jusqu'à 60 milles en dehors de la ville pour les trouver. Afin de suffire aux besoins futurs, qui seront considérables, la Commission a décidé d'établir sa propre pépinière pour la production de ces arbres. La Commission du district fédéral achète toutes ses plantes des pépinières commerciales.

L'une des responsabilités de la Commission est l'enlèvement de la neige de son réseau routier, et de ses accès et des terrains de stationnement contigus aux édifices de l'Etat. Pour ces fins la Commission doit se procurer des appareils d'entretien devant servir, au besoin, aussi bien en hiver qu'en été. De la même façon, le personnel du Service d'architecture paysagiste, au nombre de deux cent cinquante, comprend des gens qui travaillent à l'entretien des terrains durant l'été et en hiver, enlèvent la neige, sablent les chaussées et nettoient les marches des édifices publics.

En ayant charge de l'enlèvement de la neige, l'architecte paysagiste acquiert une expérience pratique sur les effets que produisent sur le paysage les grosses charrues à neige et les souffleurs. Il assure ainsi à aménager les diverses sections dont il a la charge de façon à assurer

pendant l'hiver le maximum de service sans risque de dommage, en même temps qu'il réussit à créer des effets attrayants le long des promenades.

Bien que l'architecture paysagiste se soit développée considérablement à Ottawa au cours du dernier demi-siècle, on prévoit un développement encore plus grand grâce à la réalisation du vaste programme d'urbanisme pour le capitale et sa région avoisinante. La superficie des parcs sera augmentée et on ajoutera environ quarante milles aux vingt-six milles de promenades dans les villes d'Ottawa et de Hull. Ces projets ajouteront environ quatre mille acres d'espace libre à la partie urbaine de la capitale. La Commission du district fédéral a déjà fait l'acquisition de presque tout ce terrain, mais il faudra plusieurs années encore pour en compléter l'aménagement.

Il est évident que les plans d'aménagement des parcs et des promenades d'une ville ne doivent pas se faire par bribes. Chaque entreprise fait partie d'un plan d'ensemble quant à l'espace libre, et ce plan, à son tour, est compris dans le grand plan d'urbanisme qui embrasse tous les aspects de l'aménagement et de l'expansion d'une région urbaine.

Un étroite collaboration du service de l'architecture paysagiste avec les services du génie et de l'urbanisme et les autres services de la Commission, et avec d'autres organismes, est essentielle pour mener à bonne fin l'entreprise de longue haleine et de grande envergure qu'est le plan de la Capitale nationale.

This article by Mr. Campeau is the substance of a lecture given at the Annual Meeting of the Parks and Playgrounds Association of Montreal on February 16, 1956. Mr. Campeau is the Director of Montreal's City Planning Department. He is Vice-President of the Community Planning Association of Canada and President of the Quebec Division of the Association.

TOWN PLANNING AND OPEN SPACES

by Charles-Édouard Campeau

The lack of open spaces in any city is a real curse, because any city needs space for the free flow of transportation and movements of people; space in which to create a desirable environment for living and for work; space in which the functions of the city and the aesthetics of our time may be welded into an inseparable unity.

There is ample evidence of the hunger of urban people for open space. The diminutive plaza in New York's Radio City evokes spontaneous response and the success of planned suburban residential communities and neighbourhood shopping centres attest to the very good business of adequate space, which land promoters and developers are starting to learn the hard way in our own region.

It is lucky indeed that human nature cannot live for ever on bricks and mortar. Latent within every human breast is the craving to escape from the frictions of city life into the open spaces and to re-create one's self in the "simplicity, the severity, the silence and the beauty of nature". The proof is at the outlets of Montreal at every week-end in summer-time. The exodus of citizens to the country is so frenetic that one could compare it to the effects of an atom-bomb blast. It is comparable to the great migrations of birds running after the sunshine of far-away lands. The only explanation lies in the need of finding free land, with greenery and flowers to replace the artificial frame of every-day urban life.

In order to effect a "freer movement of traffic", we decided that central parks around which traffic had been travelling for many years must be cut, bisected and reduced to handkerchief dimensions. We have even railed them off or set them on inaccessible islands, like unnatural decoration. The destruction of trees, the destruction of beauty, the catering to automobiles, irrespective of the price paid, has made the downtown shopping centre much less attractive than it formerly was.

We are constantly told that people will not walk more than a block or two after parking their car. The main reason is because of the desolation and the plain unattractiveness of the walk.

THE DOWNTOWN AREA

Beauty, and especially parks—the only things left to eliminate the drabness in our city—have a real economic value. Many people, however, believe that beauty is not important and that it has no value in a highly commercialized town like Montreal. Those people are wondering why shoppers are giving up coming downtown and are utilizing outlying shopping centres, which are doing their best to become attractive. They do not ask themselves why it is that Rockefeller Centre goes to great expense in an attempt to grow trees adjacent to Radio City on the Fifth Avenue of New York, why flowers have been planted in the middle of Dorchester Boulevard in our Montreal.

Deficiencies in park areas and in recreational facilities have resulted mainly from ill-planned land uses. Zoning practices in the past have provided extravagant areas for commercial and industrial uses, and the result has been an urban pattern riddled with mixed land uses and an absence of stability in the residential improvements. Consequently either excessive land values have rendered it too expensive to allot adequate open space for recreation, or parks have been swallowed by commercial and industrial areas from which the people are now trying desperately to escape to a better living environment.

PROBLEMS OF RENOVATION

Uncontrolled spread of blight has hastened the flight to the suburbs; indeed the absorption of open space within the central area was a major factor in creating

this blight. The combination of mixed land uses, physical deterioration and lack of open space has created a situation which can hardly be cured by the injection of occasional playgrounds into these areas. Rebuilding slum areas ought to be predicated upon the provision of ample open space.

In older sections of the city, because of their complete congestion, it used to be thought impossible to create any of the needed open spaces except at great cost. Now, however, we know that such spaces can be provided in plans for slum clearance and the rehabilitation of obsolescent neighbourhoods. The renovation scheme proposed in Montreal's Dozois plan contains a proposal for at least 10 acres of open space for park and playground.

The widening of Dorchester Street is a good example of a "bleeding" executed right in the heart of congestion to relieve urban pressure created by lack of open space in an overbuilt area.

NEW SUBDIVISIONS

Urban development, under the pressure caused by the deserts of masonry, has become increasingly chaotic in its widespread decentralization. At the same time, the greater leisure possible under modern production methods has created a need for outdoor recreational areas. Not only is more leisure time available, but the intensified nature of modern production has rendered the necessity for relaxation and recreation all the more important. One of the most vital aspects of community living, and the one which has been too frequently avoided, is adequate space for recreation.

Urban growth has been and still is a mad scramble to subdivide and sell every parcel of property that could receive a building. Open space would be easily available if it was so planned and reserved when land is still inexpensive.

It is a foolish error not to reserve the required open spaces within all new subdivisions spreading out across the urban landscape. Adequate standards of open space are urgently needed in order to avoid a repetition of the identical problem presented by the blighted city centre. Now is the time to prepare the open space within the growing subdivisions, for we cannot forget that the slums of today were the subdivisions of yesterday.

This is the reason why it has been requested by the Planning Department that a new provision of the City Charter should oblige any promoter to set aside the land needed for open spaces within new housing developments.

What would Manhattan do without Central Park? Chicago without Lincoln Park? San Francisco without the Golden Gate Park? In contrast, what a price the people have paid to make the land for Chicago's lake front, and the Moses parkways in New York? If ample space is not reserved now, speculation will grip only more firmly and sink its roots deeper into the nourishment of urban expansion. Reservation of open space—

greenbelts for recreation, broad thoroughfares, public services—is the least our capital expenditure program should include.

INCREASED VALUES

A rare example of conscious civic design, Radio City in New York reaches for a new space freedom and its attractive plaza is a showplace of the city. The buildings were planned to meet the practical requirements of space and construction, and yet it was also found practical to allot an open space for a handsome plaza.

Attention to the proportion of open spaces and building masses was an integral part of city building in the greatest cultural periods of the past. Do not these features pose a pertinent question as to just where practical planning begins and where it ends? The rare features in Radio City were considered practical for this great commercial project; might it not be considered equally practical to plan even more adequate open space in our city?

It is not for philanthropic reasons that high-gear promoters are willing to set aside high-cost footage for a plaza right in the most valuable part of a city. Do not imagine that a plaza within the C.N.R. Station area, north of Dorchester Street, would be a sacrifice from a real estate point of view. On the contrary, it would be a very shrewd and sound investment. The same reasoning applies to a square or a community park within any housing development. It is a capital investment as sound as federal bonds.

The decade following the initial construction of the New York's Central Park saw an enormous increase in the value of the lands located in its vicinity. Spectacular figures have also been established by the Westchester County Park Commission. Values increased more than 10 times around its county parks. Minneapolis invested \$15,000,000 in parks and realized that within a few years it had been entirely repaid by increased tax returns.

Whether our intense modern city civilization is to survive or not depends on complicated biological factors yet only vaguely understood. We do know, however, that open air and sunshine and opportunity to play are vital to community well-being. However profitable parks have proved themselves through their favourable effect on land values, their greatest contribution was and still is an immeasurable social one.

DISTRIBUTION OF OPEN SPACES

Open spaces are an integral part of the urban master plan and one as important as housing, industry, commerce and traffic. They are inseparable from any urban complex.

It is the balance of various types of park and play areas and their distribution which determines whether or not a community is well served. Statistically, parks and playgrounds might be sufficient in amount, but the

TOWN PLANNING AND OPEN SPACES

maldistribution of available facilities is much more important. This combination of circumstances makes it imperative to take into account neighbourhood units in planning for open space requirements.

THE MONTREAL MASTER PLAN

On the basis of these fundamental principles, the City Planning Department prepared a master plan of Open Spaces for Montreal, which was approved in principle by the City Authorities only a few months ago.

At the end of the year 1954, Montreal statistics showed the following: the population was 1,060,000, the public open spaces numbered 241 and covered nearly 3,000 acres, while the Territory of the City covered an area of 32,330 acres, of which 2,332 are under water, either in the Saint Lawrence, or in the Rivière des Prairies.

The inventory of our public open spaces, according to their present arrangement, or according to their anticipated use, permits us to list them as follows:

- 6 city-wide parks;
- 54 ornamental parks;
- 39 playgrounds;
- 8 playfields;
- 26 combined playgrounds and playfields;
- 10 combined parks and playgrounds;
- 1 combined park and playfield;
- 52 combined parks;
- 10 park-schools;
- 35 squares, places, malls, green islands, etc.

If we limit ourselves to comparing the area of the City to the area of open spaces, it will be found that the open spaces represent approximately 10% of the area of the City that can be built upon or 3,000 acres of public open spaces in an area of 29,998 acres. This percentage seems satisfactory at first sight.

However, if this total area of public open spaces is more completely analysed, it will soon be found that more than one half is made up of the overall areas of the six largest parks of the city.

On the other hand, studies show that there is a deficiency of playgrounds and playfields and that in many cases there is insufficient area of the latter when they already exist.

STANDARDS FOR THE PLANNING OF OPEN SPACES

Since the objective of the Master Plan is to meet these specific needs, it was necessary that certain standards be established, taking into account the difference in functions filled by the various types of open spaces and the present and ultimate population of the city, and especially according to sex and age group formations, within each and every sector of the city.

Knowing the area of Montreal, and also its ultimate population, the next step was to adopt standards which would allow adequately for the needs of the city in parks or green spaces, in playgrounds and in playfields. In establishing these standards, it was necessary to take

into account the space needs entailed by the rational use of the urban land for housing purposes, various institutions, commercial establishments and industrial enterprises.

The most urgent and essential problem to be solved was that of insuring a functional distribution of open spaces, in sufficient numbers and of satisfactory areas, inside the limits of the city. In this connection, it was important to determine the economical percentage of the Montreal territory which might be used for such purposes.

After numerous comparisons and diverse analyses, the desirable area has been fixed at 4,000 acres or 13.3% of the territory of the city. This figure is approximately 1,000 acres more than the present area of free spaces in Montreal. The proportion will be one acre of free space per 375 persons. It must be remembered however that the global area of free spaces does not have the significance which is too often given to it. What is most important is the adequate distribution of free spaces of appropriate types throughout the territory in order to serve adequately the entire population. The figure of 4,000 acres of free spaces is broken down as follows:

- 2,550 acres of green spaces,
- 300 acres of playgrounds,
- 1,150 acres of playfields.

The city has then been divided into 247 dwelling sectors, the population of which varies between 5000 and 12,000, 96 dwelling districts containing a population from 15,000 to 30,000 people and 15 communities of 70,000 to 135,000 people.

The present situation may be summarized as follows:

- 98 sectors are completely lacking in playgrounds;
- 62 sectors are inadequately served by the existing playgrounds;
- 87 sectors are well served by the existing playgrounds.

Out of the 98 sectors which are not provided with playgrounds, 14 contain populations too small to warrant their establishment, according to accepted standards.

From the playfield point of view, the analysis shows that:

- 20 districts are completely lacking in playfields;
- 24 districts are inadequately served by the existing playfields;
- 52 districts are well served by the existing playfields.

Out of the 20 districts which are not provided with playfields, 4 have populations too small to justify their establishment.

The Master Plan of Open Spaces shows, in addition to the existing public open spaces, the new playgrounds and playfields which would be required to serve Montreal adequately with regard to its present and ultimate population.

This master plan of open spaces does not show definitely the site of all future open spaces but it confines

La Fontaine Park



Photo: Montreal Parks Department

itself, in the majority of cases, to the determination of the approximate desirable site as a guide for acquiring future playgrounds and playfields.

Immediate attention, in the implementation of the Master Plan of Open Spaces, has already been given to sectors and districts being rapidly developed but where vacant areas still remain at appropriate sites, and also to heavily populated sectors and districts which include obsolescent buildings.

METROPOLITAN AND REGIONAL NEEDS

The lack of in-town open land arising from present dense development and the free movement of people permitted by the automobile are combining to make the planning of large parks and connecting parkways more and more a matter of metropolitan and regional concern. All the comprehensive regional planning studies which are going forward today are stressing the necessity of the reservation of land appropriate for recreation before the influx of a growing population, just as some foresighted American cities of a generation ago secured outer park areas which are now priceless possessions.

The wide radius of suburban living and of pleasure trips offered by the automobile makes the provision of landscaped parks essentially a regional problem. The value of such regional parks is self-evident, especially for the tourist trade.

The ideal diagram of any metropolitan or regional park and parkway system would seem to be a series of radiating wedges running outward from the very heart of the city, reaching several large outlying landscaped reservations which in turn would be connected by circumferential planted drives.

A parkway is a road running through park areas varying in width from 50 to 500 feet, according to the type of development traversed. As an elongated park,

one of the normal functions of the parkway is the enjoyment of pleasant landscape features.

The development foreseen on the South Shore would indicate the immediate need for a belt parkway linking Laprairie to Sorel through land which could still be provided at a reasonable price so as to secure a wide enough right-of-way for a real parkway treatment. Such a measure would constitute a tremendous enhancement to the quality of the urban areas of the South Shore, while solving at the same time a most vital traffic problem. The same way of thinking should apply to the residential developments of Jésus Island and to the sections of the Metropolitan Boulevard in the eastern and western parts of the Montreal Island.

Within Montreal, Gouin Boulevard and the Aqueduct Boulevard could provide great opportunities for nice and pleasant promenade boulevards traversing adequately planned residential developments.

PARKWAYS

At this moment, when there is serious talk of arterial roads to link Montreal to the Laurentians, Quebec and the United States, it is more important than ever to stress the outrage which is met along highways giving access to the metropolis of Canada. This is the so well-known ribbon-type highway development with its bungalows, summer shacks, motels, gasoline service stations and automobile cemeteries. This development has given birth to a continuous background which has now to be seen against a universal foreground of billboards, wire, gasoline pumps, parked cars, cement works and generator stations. The view becomes wire and pylon first and site second. In some cases, it becomes wire and pylon everywhere and site nowhere. All these adjuncts of modern life are scattered all over the sites as if they were not visible. Pylons and posts are not bad them-

selves, but when their overcrowding submerges the land surface, the final appearance is like that of oil fields or burnt-down forests.

Arterial roads are indispensable, but they can be beautiful if they have not become the projection of mediocrity from one spot to the next. Too often, the roadside is left as a dusty explosion from a local volcano. The whole length of the roads is used as a dumping ground, by producing an endless chain of hot-dog stands and gasoline stations.

It has been announced that more than \$40,000,000 might be spent on a modern highway linking Montreal to the beautiful Laurentians. I am sure that the authorities concerned will not spend such an amount of money without giving due consideration to the aesthetics of such a road, which may be one of the most beautiful parkways in North America. It would be very distressing if considerations would be limited to traffic engineering and economics alone, whatever importance they may have. Any investment in such beautification would be more than justified, not only by the aesthetic values thus created but especially by the increased value thus given to the adjoining land. The Bronx River Parkway near New York City has increased the value of the adjoining land by 800%.

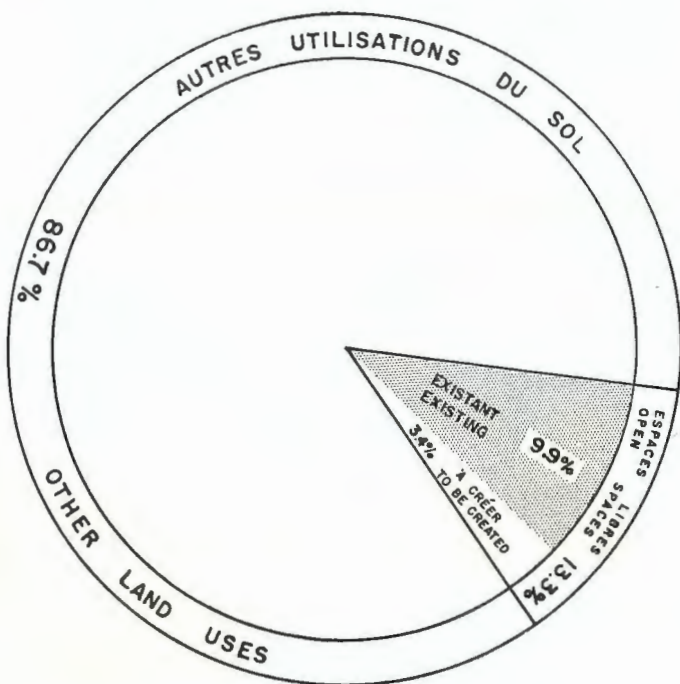
The Laurentian parkway is especially important, as this road will become one of the most travelled outlets and inlets, especially for tourists. This entrance into Montreal should be of the highest quality and the treatment of the right-of-way ought to be such that it will create an impression of vastness and beauty and will be integrated within the most functional development of the surrounding land. It should not impede the development of very valuable land, by creating for traffic a canal running through backyards of houses and giving view on balconies, wooden exterior staircases and wooden sheds and shacks.

There is an opportunity of realizing one of the most beautiful attractions in the Montreal area. We are confident that such an opportunity has already been duly considered by the proper authorities.

INTANGIBLE VALUES

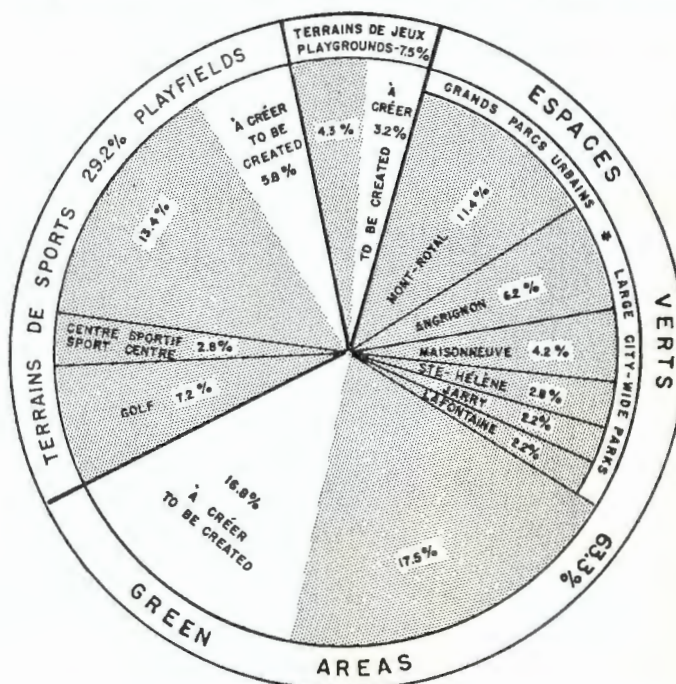
There are other values beside the practical and financial ones which are more important in the long run. Those are the intangible values. Let us recognize them before it is too late. If we are too busy making our urban developments and improvements efficient, we might forget that such intangible values are and will always remain the most vital part of our City's livelihood.

Portion of City of Montreal Devoted to Open Spaces
Portion du territoire de la ville affectée aux espaces libres



Present and Proposed Apportionment of Open Spaces in Montreal

Répartition actuelle et projetée des espaces libres



Playground and playfield areas excluded.
Non incluses les étendues affectées aux jeux et aux sports.

LE PLAN DIRECTEUR DES ESPACES LIBRES POUR MONTRÉAL

par Gérard Gariépy

Depuis septembre 1955, Montréal possède son plan directeur des espaces libres. Celui-ci a fait l'objet d'un rapport élaboré qui a été préparé par le Service d'Urbanisme de la Ville de Montréal.

Cet ouvrage ne traite pas des problèmes suscités par l'aménagement et l'organisation des espaces libres existants, car cette fonction revient au Service des Parcs. Au contraire, il traite surtout des méthodes et des principes devant régir la création des espaces libres nouveaux qui seront requis pour que la métropole du Canada soit dotée, dans l'avenir, d'un réseau d'espaces libres équilibré en fonction de ses besoins.

Le plan directeur des espaces libres constitue, en somme, un instrument de travail, un guide à consulter et à suivre chaque fois que la question se présentera d'établir un nouvel espace libre public à Montréal; son but n'est pas de régler tous les problèmes qui se poseront à l'avenir dans ce domaine, mais on y trouve du moins les éléments essentiels à leur solution.

Pour le bénéfice de ceux qui n'ont pas lu ce rapport, nous en citerons ci-après quelques passages qui offrent un intérêt général et donnent un aperçu de sa substance. Les chiffres qui seront cités par la suite ont trait aux conditions qui existaient à Montréal au début de l'année 1955.

Le rapport nous apprend ainsi qu'à cette période, Montréal comptait une population d'environ 1,060,000 âmes, ses espaces libres publics, au nombre de 241, couvraient près de 3,000 acres, alors que son territoire s'étendait sur une superficie de 32,330 acres dont 2,332 comprennent du terrain submergé, soit dans le lit du fleuve Saint-Laurent, soit dans celui de la rivière des Prairies.

L'inventaire des espaces libres montréalais selon leur aménagement actuel ou selon leur utilisation prévisible, permettait d'en dresser la liste suivante:

- 6 grands parcs urbains;
- 54 parcs d'ornementation;
- 39 terrains de jeux;
- 8 terrains de sports;
- 26 terrains de jeux et de sports combinés;
- 10 parcs et terrains de jeux combinés;
- 1 parc et terrain de sports combinés;
- 52 parcs, terrains de jeux et de sports combinés;
- 10 parcs-écoles;
- 35 squares, places, mails, îlots de verdure, etc.

soit un grand total de 241 espaces libres publics de toutes catégories.

Les divers espaces libres se partagent en trois types principaux: les espaces verts; les espaces de jeux ou terrains de jeux; les espaces de sports ou terrains de sports.

Chacun de ces types d'espace libre correspond à une unité de surface qui se retrouve seule ou combinée avec l'une ou l'autre pour former et composer les espaces libres publics qui parsèment le territoire montréalais. C'est en tenant compte des différences de fonctions que remplissent ces trois principaux types d'espaces libres que l'on a établi les normes fondamentales desquelles découlent les conclusions du rapport.

Si l'on se limite uniquement à établir un rapport entre la superficie de la ville et celle de ses espaces libres, on découvre que ces derniers représentent environ 10% de la superficie bâissable de la ville; soit 3,000 acres d'espaces libres publics pour une superficie bâissable de 29,998 acres. Ce pourcentage semble à prime abord satisfaisant.

Cependant, si l'on analyse davantage ce chiffre des espaces libres publics, on découvre que plus de la moitié de la superficie de ces derniers est constituée par les superficies totalisées des six plus grands parcs de la ville dénommés parcs urbains.

D'autre part, les recherches démontrent qu'il y a carence de terrains de jeux et de terrains de sports, et, bien souvent, une insuffisance d'étendue de ceux-ci là où ils existent déjà.

Pour préciser les besoins, il faut donc établir certaines normes et fixer certains objectifs. Ces besoins devant être calculés en regard de la population actuelle et aussi en regard de la population ultime qui habitera à l'intérieur des limites actuelles de Montréal, il a donc fallu déterminer le chiffre de cette dernière.

Après de nombreux calculs, au moyen de diverses

L'AUTEUR

M. Gariépy est entré à l'emploi de la Ville de Montréal en 1925 et il est attaché au service d'Urbanisme depuis 1942. Licencié en sciences sociales, économiques et politiques, il est chef adjoint de la section de l'habitation et des espaces libres. Membre de l'Association canadienne d'Urbanisme depuis sa fondation, de l'American Institute of Park Executives et du Town Planning Institute of Canada.

méthodes, le Service d'Urbanisme en est venu à la conclusion que la population ultime de Montréal atteindrait le chiffre de 1,500,000 âmes, une fois le territoire de la ville entièrement développé conformément aux règlements de zonage existants.

Normes adoptées pour les espaces libres à Montréal et les objectifs à atteindre

Connaissant l'étendue du territoire de Montréal et connaissant également sa population ultime, il a fallu ensuite adopter des normes permettant de pourvoir adéquatement aux besoins de la ville en parcs ou en espaces verts, en terrains de jeux et en terrains de sports. En établissant ces normes, il a fallu tenir compte des besoins concurrents d'espace, qu'entraîne l'utilisation rationnelle du sol urbain pour fins d'habitation, d'institutions diverses, d'établissements de commerce et d'entreprises industrielles, etc. Ces normes d'espaces libres décrites ci-après ne sont pas certes idéales mais elles ont été adoptées pour demeurer dans les limites pratiques d'un programme réalisable intégralement.

Le problème le plus urgent et le plus essentiel à résoudre est celui d'assurer une distribution fonctionnelle des espaces libres, en les répartissant en nombre suffisant et en étendue satisfaisante, à l'intérieur des limites de la ville. À cet égard, il importait de déterminer quel pourcentage du territoire montréalais devait être affecté à ces fins.

Sur la base de comparaisons et d'analyses diverses, on a fixé à 4,000 acres ou 13.3% du territoire de la ville, l'étendue d'espaces libres publics qu'il faut viser à obtenir. C'est donc environ 1,000 acres de plus que la superficie des espaces libres qui existent présentement à Montréal. La proportion actuelle est d'une acre d'espace libre par 350 personnes. Lorsque Montréal sera entièrement développé et habité par 1,500,000 âmes la proportion future passera à une acre par 375 personnes. En d'autres termes, même avec l'accroissement proposé, le rapport entre les espaces libres et la population sera alors moins favorable qu'il ne l'est actuellement. Cependant la superficie globale des espaces libres n'a pas la signification qu'on lui prête trop souvent. Ce qui compte surtout, c'est la distribution adéquate des espaces libres de types appropriés à travers le territoire d'une ville, afin de bien desservir toute sa population.

Cette superficie de 4,000 acres d'espaces libres est partagée comme suit:

- 2,550 acres d'espaces verts;
- 300 acres de terrains de jeux;
- 1,150 acres de terrains de sports.

Les espaces verts

On a prévu pour Montréal une superficie totale d'espaces verts de 2,550 acres. Ce chiffre dépasse de 600 acres celui des espaces verts existants.

Le rapport ne fait que fixer un objectif minimum à atteindre au point de vue espaces verts car l'établissement

de ceux-ci dépend de facteurs dont on ne peut dire avec certitude quand et où ils se présenteront dans l'avenir.

Présentement on compte à Montréal 550 personnes par acre d'espaces verts ou par acre de parcs où la verdure prédomine. Vu qu'une grande superficie de certains parcs actuels sera aménagée dans l'avenir au bénéfice de la récréation active, cette proportion passera à 590 personnes par acre d'espaces verts en dépit de l'augmentation prévue. Malgré tout, ceci ne constituera pas à vrai dire un recul mais bien un progrès, car un aménagement plus poussé des espaces libres permet d'en tirer un parti plus avantageux.

Les terrains de jeux

On compte présentement à Montréal 114 terrains de jeux distribués dans 99 espaces libres; de ce nombre 8 sont installés sur des emplacements loués. L'étendue de ces terrains de jeux varie de 10,000 à 100,000 pieds carrés. Il est nécessaire de multiplier les terrains de jeux car le secteur urbain qu'ils desservent ne dépasse pas $\frac{1}{4}$ de mille de rayon.

Présentement les terrains de jeux existants occupent une superficie de 80 acres. Dans les espaces libres non aménagés, il y a place pour 68 autres terrains de jeux qui pourraient occuper une superficie estimée à 90 acres. De sorte qu'à Montréal on compte présentement une acre de terrains de jeux existants ou potentiels par 6,200 personnes, ou une acre de terrain de jeux pour 750 enfants de 5 à 12 ans.

On a fixé comme objectif le chiffre de 300 acres de terrains de jeux pour desservir la métropole, quand elle aura atteint sa croissance ultime. Il y a, théoriquement du moins, un besoin actuel d'environ 40 acres de terrains de jeux nouveaux. Avec un total de 300 acres de terrains de jeux, on obtiendra pour l'avenir une acre de terrain de jeux par 5,000 personnes ou une acre de terrain de jeux pour 600 enfants de 5 à 12 ans.

Les terrains de sports

On trouve présentement à Montréal des terrains de sports dans 41 de ses espaces libres; leur étendue varie de 1 acre à 26 acres.

On s'accorde généralement pour reconnaître qu'un terrain de sports peut desservir une agglomération s'étendant dans un rayon de $\frac{1}{2}$ mille autour de celui-ci.

Montréal est assez bien pourvu en espaces disponibles pour fins de terrains de sports. Les 41 terrains de sports qui existent déjà occupent une superficie d'environ 200 acres et il y a place pour 62 autres dans des espaces libres non aménagés où ils peuvent s'étendre sur une superficie d'environ 370 acres.

À noter que ces chiffres ne tiennent pas compte des 400 acres du parc Maisonneuve affectées au Centre sportif et au golf municipal, car il s'agit là de fins sportives ou

athlétiques bien spécialisées qui tombent dans une catégorie à part. On peut dire en conséquence que Montréal compte présentement une acre de terrain de sports existant ou potentiel par 1,860 personnes, ou une acre de terrain de sports par 420 personnes comprises dans ce groupe de la population dont l'âge varie de 12 à 25 ans.

On a fixé comme objectif le chiffre total de 1,150 acres de terrains de sports pour desservir la métropole quand elle aura atteint sa croissance ultime. En excluant les 400 acres attribuées au Centre Sportif et au terrain de golf municipal, on ramène ce chiffre à 750 acres, ce qui constitue l'objectif à atteindre au point de vue terrains de sports locaux.

Il y aurait théoriquement un besoin actuel de 530 acres de terrains de sports et l'on dispose de 570 acres à ces fins; ce qui donne un surplus apparent de 40 acres. Il se trouve, cependant, que la plupart des terrains de sports existants ou potentiels sont situés dans les quartiers périphériques où la population est le plus souvent fort dispersée.

Il en résulte donc que les 180 acres de terrains de sports requises pour atteindre l'objectif précédemment fixé, serviront surtout à satisfaire les besoins actuels des districts les plus peuplés, ceux-ci étant d'ordinaire les plus dépourvus à cet égard.

Avec un total de 750 acres de terrains de sports, on obtiendra dans l'avenir une acre de terrain de sports par 2,000 personnes ou une acre de terrain de sports par 450 personnes comprises dans ce groupe de la population dont l'âge varie de 12 à 25 ans.

Le rapport entre le nombre actuel et le nombre futur de personnes par acre de terrain de sports peut sembler défavorable, à prime abord, mais ce désavantage sera compensé par une meilleure distribution des terrains de sports sur l'ensemble du territoire montréalais.

Les secteurs d'habitation et les terrains de jeux

L'étendue désirable d'un terrain de jeux est de 60,000 pieds carrés, ce qui équivaut à un peu plus de $1\frac{1}{3}$ acre. Un terrain de jeux possédant ce minimum d'étendue peut desservir une population de 800 enfants, dans les âges de 5 à 12 ans, en attribuant à chacun d'eux un espace de 75 pieds carrés. Dans des conditions ordinaires, un tiers seulement des enfants habitant dans le voisinage d'un terrain de jeux s'y rendent à la fois.

Il importe de répartir équitablement entre toutes les parties de la ville la superficie totale de terrains de jeux qui a été prévue pour répondre aux besoins actuels et futurs de la population. On y parviendra en partageant la ville en secteurs d'habitation ayant une population actuelle ou future suffisante pour y justifier dans des conditions normales, l'établissement d'au moins un terrain de jeux. Le secteur d'habitation est donc l'agglomération urbaine constituant l'unité de base adoptée pour diviser le territoire municipal.

Division de la ville en secteurs d'habitation

La ville a été ainsi divisée en 247 secteurs dont la population varie entre 5,000 et 12,000 âmes. Les lignes de démarcation de ces secteurs sont constituées de façon générale par les voies de grande circulation, les canaux, les voies du chemin de fer, les zones industrielles, les accidents géographiques, etc.

Les secteurs d'habitation adoptent le plus souvent la forme rectangulaire. Leur superficie varie de 60 acres, soit l'équivalent d'environ 15 îlots dans les secteurs densément peuplés, à 150 acres, soit l'équivalent d'environ 25 îlots dans les secteurs périphériques où dominent les maisons unifamiliales.

Les districts d'habitation et les terrains de sports

L'étendue minimum désirable d'un terrain de sports est de 300,000 pieds carrés ou un peu moins de 7 acres. Un terrain de sports ayant ce minimum d'étendue peut desservir une population d'environ 13,500 personnes. Pour la proportion moyenne de cette population dont l'âge varie de 12 à 25 ans, ceci représente 100 pieds carrés par tête. Dans des conditions ordinaires, un quart de la population de 12 à 25 ans utilise à la fois un terrain de sports.

Il importe de répartir équitablement entre toutes les parties de la ville, la superficie totale de terrains de sports qui a été prévue pour répondre aux besoins actuels et futurs de la population.

On y parviendra en partageant la ville en districts ayant une population actuelle ou future et une étendue suffisantes pour y justifier, dans des conditions normales, l'établissement d'au moins un terrain de sports.

Division de la ville en districts d'habitation

Les districts d'habitation sont constitués par le groupement de deux, trois et parfois quatre secteurs contigus. Les districts ainsi formés au nombre de 96 renferment habituellement une population de 15,000 à 30,000 âmes. La superficie de chacun peut varier considérablement dû au genre d'habitations qu'on y trouve et à la densité du peuplement qui en résulte.

Les lignes de démarcation des districts sont constituées ordinairement par des barrières physiques telles que les canaux, les voies de chemins de fer, les accidents géographiques, et occasionnellement par certaines grandes artères de circulation.

Division de la ville en arrondissements

En groupant un certain nombre de districts, on a formé des unités ou arrondissements dont la population actuelle ou potentielle varie entre 70,000 et 135,000 âmes environ. Ces arrondissements, au nombre de 15, sont d'étendue variable et de forme très irrégulière; leurs limites sont d'ordre physique et géographique.

Le plan des arrondissements se révélera fort utile chaque fois qu'il s'agira, dans l'avenir, de déterminer le nombre et l'emplacement des centres municipaux, piscines



Photo: Henri Paul

Le parc Mont-Royal

intérieures, cliniques, succursales de bibliothèques, enfin de tous nouveaux édifices publics construits pour servir la population montréalaise.

LE PLAN DIRECTEUR DES ESPACES LIBRES

Le situation au point de vue terrains de jeux dans chaque secteur et au point de vue terrains de sports dans chaque district se résume ainsi:

- 98 secteurs sont dépourvus de terrains de jeux;
- 62 secteurs sont insuffisamment desservis par les terrains de jeux existants;
- 87 secteurs sont bien desservis par les terrains de jeux existants.

Dans le cas de ces derniers, 25 d'entre eux ne renferment pas de terrain de jeux dans leur aire, mais ils tombent dans le rayon de desserte des terrains de jeux existants ou potentiels qui se trouvent dans les secteurs adjacents ou dans des parcs urbains. Par ailleurs, des 98 secteurs qui sont dépourvus de terrain de jeux, 14 renferment une population trop faible pour motiver l'établissement d'un de ceux-ci selon les normes établies.

Au point de vue terrains de sports, la situation se résume comme suit:

- 20 districts sont dépourvus de terrains de sports;
- 24 districts sont insuffisamment desservis par les terrains de sports existants;
- 52 districts sont bien desservis par les terrains de sports existants.

Dans le cas de ces derniers, 22 d'entre eux ne renferment pas de terrain de sports dans leur aire, mais ils

tombent dans le rayon de desserte des terrains de sports existants ou potentiels qui se trouvent dans les districts adjacents ou dans des grands parcs urbains. Par ailleurs, sur les 20 districts qui sont dépourvus de terrains de sports, 4 renferment une population trop faible pour motiver l'établissement d'un de ceux-ci selon les normes établies.

Mise en oeuvre du plan directeur

Sur un plan de la ville intitulé plan directeur des espaces libres, on a indiqué par des symboles appropriés, la situation finale résultant de l'addition, aux espaces libres publics existants, des terrains de jeux et terrains de sports nouveaux dont il faut doter Montréal pour satisfaire adéquatement les besoins, non seulement, de sa population actuelle mais également de sa population ultime.

Le plan directeur des espaces libres publics de la ville ne situe pas définitivement tous les espaces libres futurs, mais il se limite, dans la majorité des cas, à déterminer l'emplacement approximatif désirable des futurs terrains de jeux et terrains de sports et à indiquer, dans certains cas particuliers, les espaces libres publics existants qu'il y a lieu de modifier ou d'affecter à d'autres fins.

Certains terrains de jeux et certains terrains de sports proposés doivent être créés le plus tôt possible dans divers secteurs ou districts populeux et entièrement dépourvus à cet égard. Dans d'autres cas, il s'agit pour le moment de prévoir ces deux types d'espaces libres en vue de besoins qui se produiront graduellement dans l'avenir. Conséquemment, les mesures à prendre pour corriger la situation des secteurs et districts déficients ne peuvent être les mêmes dans tous les cas.

Il est essentiel d'apporter une attention immédiate aux secteurs et districts en voie de développement rapide mais où il subsiste encore des emplacements vagues situés à des endroits propices, ainsi qu'aux secteurs et districts populeux renfermant une majorité de constructions vétustes.

À cette fin il faudra analyser dans le détail la situation particulière de chaque secteur et de chaque district où existe une carence ou une déficience d'espaces libres. À la suite d'études d'ordre écologique, social et économique, les solutions correctives se ramèneront aux propositions suivantes:

- (a) agrandir dans certains cas les terrains de jeux et les terrains de sports existants;
- (b) acquérir des terrains libres encore disponibles;
- (c) acquérir des emplacements bâtis où les bâtiments sont déjà vétustes;
- (d) homologuer à court terme des emplacements bâtis dont on prévoit l'acquisition prochaine;
- (e) homologuer à long terme des emplacements bâtis, afin d'en permettre l'acquisition graduelle quand les circonstances le permettront.

Dans cet article, M. Warner S. Goshorn, l'architecte-paysagiste en charge des plans des parcs de Montréal, donne d'abord un aperçu rapide de l'ampleur du réseau de parcs de la Métropole du Canada. Il explique ensuite le procédé d'aménagement utilisé à Montréal. L'expérience montréalaise est concluante et peut s'appliquer à des villes de moindre importance. L'auteur souligne particulièrement le rôle primordial de l'architecte-paysagiste dans la création des espaces verts tant au point de vue esthétique que pratique.

LANDSCAPE ARCHITECTURE IN MONTREAL

by Warner S. Goshorn

The corporate limits of the City of Montreal encompass 50 square miles, the same being 23% of the area of the Island on which the City sprawls. Of this municipal plot, something over 3,000 acres are dedicated to park purposes. This acreage is parcelled and fairly distributed as squares, greens, playgrounds, and divers types of parks, about 250 units in ranges of size from nearly 600 acres to a fraction of an acre. Excluding the fractions which are, for the most part, minor bits of live tissue between the city's hardened traffic arteries and which answer more truthfully to the name "open space", there are some 200 recreational parks in various stages of completion owned and operated by the City of Montreal. Upon these areas a diversity of play, work, and education is carried on.

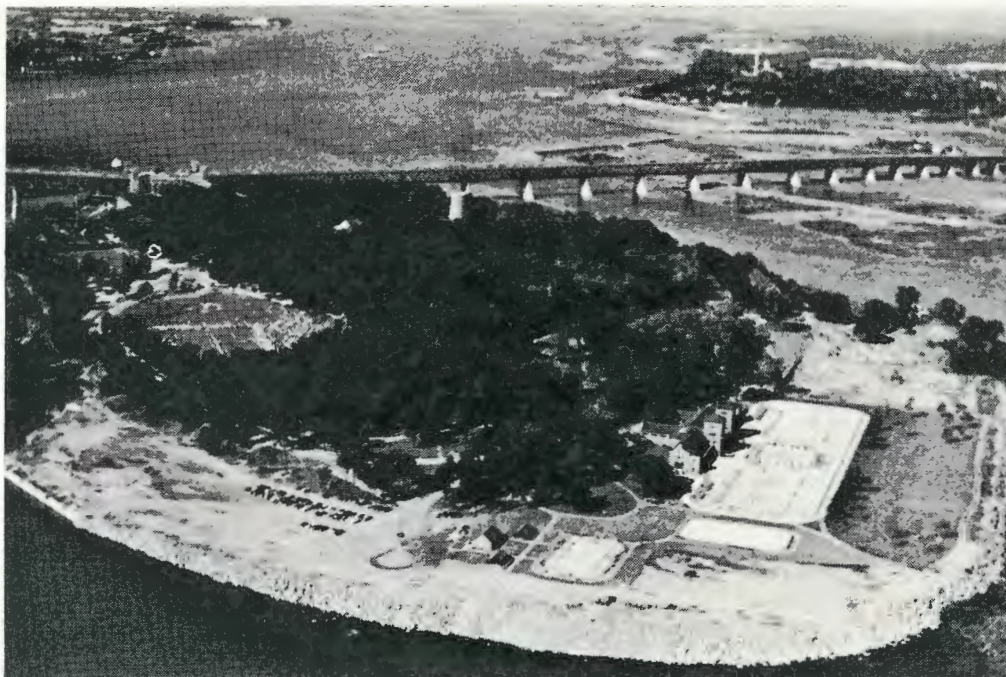
To convey quality and quantity, some figures are necessary: there are 115 playgrounds, 18 indoor swimming pools, 34 wading pools, 65 lighted tennis courts, a 28 hole golf course, 12 recreation centres, 175 natural and 5 artificial ice skating rinks, 150 ball diamonds, football and soccer fields; there are 18 restaurants ranging from snack-bars to beautifully-appointed dining salons; 50 public comfort stations; an internationally-recognized Botanical Garden; 100,000 street trees; nurseries and greenhouses with hundreds of thousands of trees, shrubs, and flowers for civic embellishment; a 1,900-seat lakeside outdoor theatre with an island-based stage. There are many year-round-use park shelters, a mountain Chalet, historical fortifications, an entire 120 acre island, and

Beaver Lake in Mount Royal Park.

Le Lac-aux-Castors dans le parc Mont-Royal.

Photo: Henri Paul





St. Helen's Island, 1955

Ile Sainte-Hélène, 1955

Photo: Montreal Parks Department

so on. These units and others go to make up the existing physical plant.

In this plant, a large number of activities are carried on through and by 5 divisions of the Parks Department: Maintenance, Recreation, Forestry, Restaurants, and Botanical Garden. Last year 70,000 children engaged in the summer vacation recreation program; there were 1,037 league hockey games, 800 baseball teams, 65,000 rounds of golf, 85,000 tennis games, a million indoor bathers, 300,000 outdoor ones, and 130,000 wading-pool customers. Children's shows and theatricals took place in 33 parks, aided and abetted by a completely equipped mobile theatre-on-wheels, *La Roulotte*; over 100,000 handicraft items were made by the children in painting, woodwork, metal craft, leather, etc., etc. Six thousand trees were planted, thousands more pruned, carloads of shrubs and untold numbers of flowers set out; seas of grass, leaves, and ice surfaces were mown, raked and flooded; scores of city instructors, umpires and referees talked and shouted themselves hoarse at skiers, skaters, swimmers, and handicrafters as well as at those playing tennis, baseball, football, basket-ball, volley-ball and the rest. Research, classes, public lectures, exhibition and published information were lines of activity in the Botanical Garden. Everything from tons of hot dogs to multi-course civic banquets were served by the restaurants; and the maintenance division, as do all maintenance divisions, personally bought and paid for their annual quota of aspirin. These things are, then, the parks and something of what goes on in them.

Before and behind all this are the concerns of planning, preparations, construction and the necessary money

that go into making these things possible. For good building there must be sound planning, careful preparation, supervised construction, and adequate money forthcoming from sympathetic and co-operative municipal authorities. Montreal considers herself more fortunate than most in these things. With Mayor Drapeau, an understanding Executive Committee, a generous City Council, and the complete co-operation of Public Works Chief Lucien L'Allier, Parks Director Claude Robillard has been able to realize remarkable progress.

The planning of a new park or redevelopment of an old one advances in this fashion. Director Robillard meets with his parks advisory staff consisting of the Division Superintendents and other key service help. City master plans are consulted and a program for the area is formulated, based on the needs of the locality and the qualities of the site. With this, the ball is thrown to the Public Works Department in whose administrative offices and at whose drawing tables are the literally hundreds of professional men who will prepare the necessary plans, details, and specifications required for the realization of the work involved, supply the supervision in the field, and arrange payment of all expenses incurred in completion of the work according to pre-arranged budget allocations.

The Landscape Architects are the first to be consulted and advised of what is required. Their job is to prepare, first, preliminary plans for the approval of the Parks Director and/or other civic authorities concerned. After such approval, complete plans—general development, staking, grading, construction details, and planting — are forthcoming. In close co-operation are the Park

A section of the scale model of St. Helen's Island Development.

Une Maquette du développement complet de l'île Ste-Hélène. Maquettiste: Marc Comte de l'atelier d'architecture du service des travaux publics.

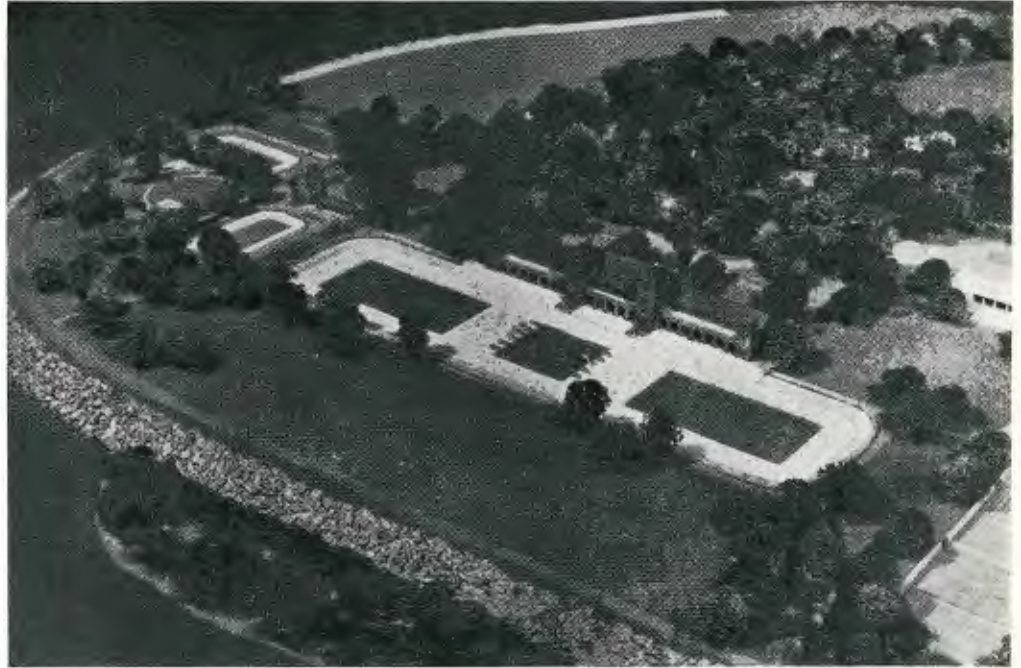


Photo: Montreal Parks Department

Engineers from whom come all land mensuration data and maps, the drainage plans, and all the technical personnel for surveying and supervision of non-architectural construction in the field. Hand-in-hand are also the heavy construction engineers, the architects and the electrical and mechanical engineers, all part of the Technical Division. More than this, advice and help is often sought from and supplied by the City Planning Department, the Departments of Roads, of Water, of Sewers, of Electricity, of Buildings, and the City Shops.

Final plans, when approved by the Parks Director, the Director of Public Works and, when so desired, by the Executive Committee, are then put wholly or partly into the hands of city construction forces or put up for tenders to private contractors with full supervision by city professionals from the technical services concerned. An area or unit of an area completed, the Public Works Department formally turns it over to the Parks Department in whose operational budget it then becomes an item and whose services then become responsible for its maintenance and operation.

If the foregoing has given a general idea of what things are in the parks, how they got there and what end they serve, it will be understood that the Montreal Parks Department, with a 4 million annual operational budget, is definitely in the category of big business. Equally big business is its Capital Expenditures Budget handled, as explained, by Public Works. Needs are many. Montreal, like large cities the world over, is becoming increasingly aware of its responsibilities to the intangible as well as the tangible needs of the citizen. He must have more than water in the tap, a sewer connection under

the front curb and a street to ride to work on. Leisure time looms as a great social problem of the future, and municipalities are fast drafting their parks departments as the standard bearers in the coming social battle against idleness and all its attendant legions of antisocial elements.

So is it in Montreal, and in addition to the tremendous strides of the past few years, many new projects are on the boards with only man-hours between them and completion; many plans are finished and awaiting either approval, a contractual agreement or favourable construction weather; many projects are already begun in the field with completion dates anxiously awaited.

For example, preliminary work has begun on the site of the 265-acre Angrignon Zoological Park which will be at completion not only the first major zoo built on the continent in the past 35 years, but unique by virtue of glass-walled buildings permitting unimpeded views and vistas almost everywhere. Surrounded by a wide belt of pastoral park, picnic, and play areas, many thousands of Montrealers may at one time enjoy all the recreative and cultural benefits it will offer. Moreover, preliminary plans are on the boards for a miniature Children's Zoo at LaFontaine Park where, in a story-book atmosphere, small children will see, feed, and touch baby animals.

Three exhibition greenhouses are under construction at the Botanical Garden, and nearby a beautiful stone-and-glass restaurant with a terrace overlooking formal garden parterres is more than half completed.

General development plans are prepared and approved



Annual Parks Picnic at St. Helen's Island.

for the 112 acre, multi-million dollar City Sports Centre in Maisonneuve Park, a completely comprehensive complex suitable for the Olympic games and including an 80-thousand-seat stadium, hockey arena, swimming pools, gymnasium, theatre, baseball stadium, etc. Architects are preparing building plans and preliminary grading is expected to begin there this summer.

Mount Royal Park, originally designed by the great F. L. Olmsted, is being re-designed in conjunction with a cross-mountain parkway and will offer, among other things, a magnificent outdoor theatre through whose proscenium arch at night the audience may see beyond to the twinkling lights of the City below the mountain. Moreover, architect's plans are complete for summer construction of a beautiful year-round shelter-restaurant chalet overlooking Beaver Lake on Mount Royal.

The first of several quarter-mile running tracks is under construction; contracts have been let for batteries of 20 lighted tennis courts with 20 more ready for bids; two lighted asphalt combination court-games-and-hockey-rink areas were completed last fall with plans for many more to be contracted; plans are under way for steel swimming-pool-diving-pool complexes to be distributed over the city for outdoor summer use; more lighted artificial ice rinks are planned; contracts have been let for additional wading pools; money is available and planning under way for historical museums; public boat liveries are being designed into riverside park areas; 12 new year-round park shelter-wading pool complexes completed last summer with showers, toilets, team rooms, warming rooms, craft-space etc. will be supplemented with additional shelters of the same type whose plans are on the boards at the moment. The smaller neighbourhood parks, of which the city has a great many and which are the backbone of the whole system, are not neglected; all of a score of them are under active development in one stage or another with detailed plans coming off the drawing boards as fast as skill will permit. Park-schools, an experiment begun several years

ago and now recognized as highly advantageous to all concerned, are now in existence or being constructed at twelve happily-observed locations.

Montreal, self-inoculated with the serum of social consciousness and moral obligation, is running a fine, high, park fever and will continue to do so as long as it is beset by the social ills which appear to be chronic with the age.

All of the foregoing may be considered to be a somewhat lengthy prologue to a discussion of Landscape Architecture in the City of Montreal, but it is necessary to give a concept of the magnitude of the park movement under way in order to establish an appreciation of the very large obligation on the shoulders of the planners and designers in the ability of whose lead pencils so much time, money, and effort is being confided.

Certain basic principles and guides, general and specific, have been created and are being followed to implement planning. No longer do parks bear a bar sinister on a coat-of-arms with the crest of a "gifted" foreman on a field of shovels and scrap-lumber, a District Councillor rampant. The day of the jack-leg, "anything-to-keep-'em-happy" park has gone as it has everywhere else where exists the modern awareness that study and planning are essential to economy, efficiency and beauty. Time for these due processes of design is of the essence but is not always freely given; for there are inevitable urgencies in municipal affairs. But the park-minded are quick to insure the reasonable amount of time necessary for the designer to find that essential amount of satisfaction in his plan which allows him to let it be stripped from his board.

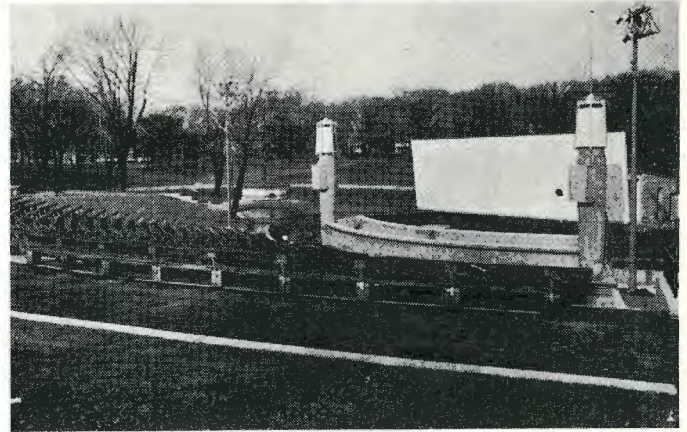
Considerable effort has gone into the standardization of basic units — the paved multiple-games-hockey-rink court, the shelter, the wading pool area; the general design of areas for pre-schoolers, for adults, and for older children's apparatus areas; benches, drinking fountains, bed edgings, boundary fencing, parking barriers, topsoil cover, brick paving, etc. In a large park system where standardized construction practices and systematized maintenance procedures mean large economies, a controlled degree of uniformity is naturally highly desirable. Originality is, of course, valued and sought, but too much of it can get out of hand. Far better to refine and adopt than to vary infinitely — and often come up with something worse.

Design as always is aimed toward the satisfaction of posterity as well as of the present day needs, although on this point all Landscape Architects are haunted by the mobility of styles and changes in public tastes, and seers being in the minority, must content themselves for the most part with imagining the future in terms of intensification rather than change of the present: elbow room must be allowed for coming generations. At the same time, there is ever the check against both over-designing and over-developing beyond present mainten-

ance and supervisory capabilities, both labourwise and moneywise. More must not be on the ground than can be reasonably tended, for this is not only waste in the extreme but is the worst form of advertising. Far better to put the bones and sinews of a good basic design on the ground — the grading, sub-surface work, main walks, fencing, and major open play areas, to tend them simply and well, and to await the day when increased maintenance and supervision funds and facilities may justify the addition of the embellishing details of planting, structures, stone work, curbs, flowers, specialized games areas, etc. An unmaintained area is infinitely more of a black eye than one undeveloped, and the public much more tolerant of sins of omission than sins of commission.

Furthermore, designers must never forget that they live in an age where any extreme of vandalism is not only possible but unreasonably probable, and that park departments can be bled white striving earnestly to maintain developments which are too rich for their blood in the first place. It is a wonderful thing to envisage, plan, and find the wherewithal to construct parks where beauty and harmonious unity is to be seen in every direction and around every corner, unmarred by age, wear, destruction, and failure of functional intent, but this is a big order for any city park other than perhaps an intensively protected and/or policed purely-ornamental area in which children are the exception rather than the rule. For the general types of playgrounds, neighbourhood parks, and district parks where active recreation is the primary justifying value, the designer must do his park a service and himself a favour by not specifying the creation of "beauty" where beauty will obviously not stand up. A beautiful thing is not by any means a practical or an efficient thing, whereas if practicality and efficiency are the ends sought and attained, there is sure to be the negative beauty we speak of as "lack of ugliness" in all parts of the scheme without which any design is a failure.

So, the problems that beset the City Landscape Architects' office in Montreal are much the same as those of city park designers everywhere on the continent with variations due to climate, public tastes, and tradition. The production pressure is always present, and the present office of ten landscape architects can only handle so much work properly in any given period of time.



An Open Air Theatre built on an Island in La Fontaine Park.

Consequently, very large jobs or ones requiring specialized technical knowledge such as the proposed zoo, are often consigned to private firms in order that the city staff may not be tied up on a single problem. In the past year, pressure has built up to the point where an experiment is being conducted in the farming-out of even certain small park designs to private firms in an effort to satisfy the demand for area development.

The tempo of the park movement in Montreal has, in the past several years, increased tremendously. What has been accomplished is, as it should be, a great source of pride to the city. There are few places on the continent where one can see as much development work going on. Moreover, the tempo is quickening every year and the writer is very sure that, if the pace is continued, the park system is definitely headed in the direction of becoming one of the most complete and richly endowed systems in the world.

If the status and progress of park landscape architecture in Montreal were to be summed up in a sentence, it should read something like the following: a social-conscious administration is sold on the idea of beautiful parks; a design-conscious Parks Department is sold on its motto of "Beauty for Recreation"; and a duty-conscious Landscape Architects' office is sold on the concept of beauty within efficiency.

THE AUTHOR

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THE DESIGN OF HOUSING GROUPS AND URBAN SPACES —

Landscaping the Groups and Spaces

Part Three

by Hugh Owen

The first and second parts of Mr. Owen's article appeared in the September and December issues of the 1955 REVIEW.

In this series of articles, the object has been to study the use of space as an element in the design of a residential area. The designer must try, not only to give character to each space, but, by a unity of design, to link a series of spaces so that they can be identified as a neighbourhood.

This can be done partly by the kinds of space and the types of building that are used; but landscaping must be relied upon to complete the design.

Urban landscaping in Canada has received little attention up to the present and its use in suburban areas is practically non-existent. Although it comes naturally at this place in our series of articles, it is no less important than space and buildings.

In discussing precepts of design, it was pointed out that the poor appearance of our streets was due to lack of thought for the elevations at the planning stage. Similarly, landscaping cannot be ignored until after a scheme has been built. It must not be applied as an afterthought, simply as a material for patching up a design. Buildings, space and landscaping are inseparable in design and must be considered together.

PLANT MATERIAL

The principal use of plant material is to line a street with trees, usually maples or elms, and to plant shrubs around the houses. But in most of our neighbourhoods, there is no relationship between adjoining gardens; and, as in dealing with elevations, too much individuality in landscaping can make a street look untidy (Fig. 20).

One of the reasons for co-ordinating all aspects of design is to ensure that trees will not be planted on top of drains and beneath overhead wires. If this one aspect had been considered in the past, we would have been spared many mutilated trees.

To achieve sound results, a landscape architect should be employed. Soil conditions, ultimate growth and seasonal appearance are problems for the specialist, requiring exact knowledge. Unless proper forms of plant material are used, the results may not be those desired.

In discussing the subject of these articles, the writer was repeatedly astonished by people expressing the view that Canada had a very limited range of plant material. This is quite untrue. We have a wealth of material of great beauty and richness.

Parts of Canada are fortunate in having very hot summers that produce trees and shrubs of an astonishing and luxuriant growth. The Experimental Farm, Ottawa, and the Niagara Parks, especially the Horticultural Gardens near Queenston, are two places where the variety of plant material and its verdant growth can be seen.

The material in these places has, of course, been used in landscaping public space. But it does not require much imagination to see the rich and exciting effects which could be achieved when adapted to the space formed by groups of houses.

One example of the available variety is the collection of hedge material at the Central Experimental Farm, Ottawa, where there are some 60 species growing with a very wide range of shape, colour and texture (Fig. 21).

Another example is the plane tree. This beautiful tree is hardly ever seen in Canada. It grows exceptionally well in urban surroundings and is especially suitable in the heavily-smoke-polluted atmosphere of our cities. There is a superb specimen in the Experimental Farm's horticultural garden in Ottawa (Fig. 22) and a fine group can be seen on Bain Avenue in Toronto.

Linden or lime trees are not used nearly enough although they grow extremely well in Canada. There are



Fig. 20



Fig. 21

two fine specimens in front of Victoria College, Toronto, and there are numerous examples in Ottawa. They are covered with inconspicuous flowers in June which give off a lovely fragrance. Some cities in Europe are planted extensively with them and the atmosphere in early summer is redolent with their perfume. The wide use of lindens would not only give a local character to a neighbourhood but would also add immensely to the pleasure of the inhabitants.

SHRUBS AND TREES

Besides hedges, which have been mentioned, there are flowering and ornamental shrubs and low-growing evergreens; there are the smaller trees with interesting and sometimes curious forms such as weeping ash. Some trees have both blossoms and fruit, such as cherry, plum and rowan or mountain ash, which gives them an added interest through the seasons (*Figs. 23 and 24*).

Then there are the tall trees, such as elm and maple, which can be used either as avenues to lead the eye through an area, or to define space.

There is a tremendous scope in all of these forms of vegetation and they can be employed in infinite groupings by contrasting their shape, colour and texture.



Fig. 22

FORMAL AND INFORMAL PLANTING

The usual form that street planting takes in Canadian cities is in avenues of identical trees. Maples are probably the most extensively used, but there are also numerous examples of magnificent avenues of elms (*Fig. 25*).

The main criticism of this standard practice is that it is so universal. Every street has the same kind of planting from one end of a city to the other and, because there is no contrast, there is no relief. Nor is there any individuality in either a road or a neighbourhood. In fact, because of the monotony, we cease to look at them as elms or maples or as landscapes. They become merely trees!

If, however, there were a succession of groups of trees or a series of spaces with trees of contrasting shapes, colour and texture, their interest would be heightened and they would make a positive contribution to the street scene.

An avenue is one of the most effective ways of growing trees. The usual pattern is in single rows; but double rows close together give a very luxuriant appearance. Variety can be obtained by alternating either single trees or formal and informal groups in a definite pattern with contrasting form, colour and texture.

THE DESIGN OF HOUSING GROUPS

All avenues need not consist of tall trees. There are numerous low-growing varieties (*Figs. 23, 24*) which can be used either alone or in combination with other plant forms such as shrubs or hedges (*See Fig. 9 in the first article of this series, on page 88 of Volume V, No. 3*).

EXISTING MATERIAL

Nearly everybody recognizes the desirability of trees in a residential area. If it is considered how long they take to grow to a reasonable size and shape, one would think that the value of existing growth would be apparent. Yet builders persist in completely clearing them from the site.

The developer's sole interest, however, is in putting up houses with the least inconvenience, and when they are sold he has no further interest in the property or responsibility for what he has created. It is the people of the community who fall heir to his efforts and it is in their own interest to preserve all the amenities they can.

Unfortunately, most suburban development takes place on open farm land. Where there are existing trees, they should be incorporated into the plan, and it is possible that a particular grouping could establish a pattern for a whole neighbourhood. This is especially true of Quebec where the long hedgerows between the narrow fields give a peculiar perspective to the countryside.

The usual forms of groups of trees that are found on farm land are wood-lots, avenues to farm houses, windbreaks, orchards and sometimes hedgerows. If it is possible, they should be used as a focal point in a neighbourhood.

LANDSCAPING THE SPACE

The principal ways in which landscaping can be used are

- (1) to define and emphasize the space and to complete the composition where it is not possible to use buildings, usually by filling the gaps between the houses and by linking the ends of the group across the roadway;

- (2) to create both the individual character of each space and the identity of a neighbourhood.

THE CHARACTER OF A SPACE

Each space will have individual plant material and its own distinctive pattern of planting. Adjoining spaces will have contrasting material or treatment. For example, one space will have an avenue of tall elms, while the adjacent areas are treated with hedges and low trees.

Another way is to landscape entirely with hedges. With such a wide range of species, this treatment can

be extended to a series of spaces forming a neighbourhood. While adjoining spaces have their own identity because of the contrast in shape, size, texture and colour, there is an overall, unifying effect throughout the area (*Fig. 26*).

Shrubs and trees can also be used in a similar manner, specific kinds being used in one space with contrasting shapes and colours appearing in adjoining groups. It is not difficult to imagine the effect which can be created by planting one group with silver birch (*Fig. 27*), the next with copper beech and the next with plane trees.

The possibilities are infinite when two or more contrasting materials are used in each space, especially when different patterns of grouping are employed.

Another method is to treat one space in an open manner with low-growing evergreens such as junipers (*Fig. 28*) while adjoining groups are planted with tall trees such as elms (*Fig. 25*).

THE IDENTITY OF A NEIGHBOURHOOD

Landscaping will establish the identity of a neighbourhood by uniting the series of spaces within it, and contrasting treatment in adjacent neighbourhoods will give each a distinctive character. One neighbourhood, for example, may have formal planting and the next one may be informal.

One method for uniting an area and creating identity is to use the same kind of tree to close the ends of all the spaces. If the catalpa is used, its lush appearance and unusual green can be recognized easily and it forms a motif for the area.

Another method is to use only horse chestnuts on the principal or collector streets of the neighbourhood. If the red and white flower variety are used either alternately or in groups, the effect is very beautiful.

THE FLOOR OF THE SPACE

The materials of design so far mentioned are the space itself, the grouped buildings and the landscaping, the latter two being the materials which form the walls or sides of the space. In this section we will consider the floor of the space.

It has been stressed that the space should be a recognizable volume, architecturally, and that it is desirable that the sides should be seen as planes. This applies equally to the floor of the space and it too should be seen as a single unit. This is not as difficult as it sounds, even though the road does cross the area, tending to cut it in two. Naturally, the road should be as narrow as possible, but this will depend upon its function.

Although straight streets, normally, have little sense of enclosure, it will not matter if such a road runs through several consecutive spaces, provided landscaping



Fig. 23

Photo: J. Kelton



Fig. 24



Fig. 25



Fig. 26



Fig. 27



Fig. 28

Photo: J. Kelton



Fig. 29



Fig. 30

has been used to complete the grouping and the space. Space does not have to be entirely enclosed to be recognized and it will not matter if we can see beyond one enclosure into the next. As it is proposed that each space should receive a different treatment, the visual contrast will accentuate the design.

Roads, however, tend to dominate the space between the houses. Frederick Gibberd points out that this is because the usual, long, straight lines lead the eye across the space. The footpaths can help to break this by linking the houses across the area.¹ The ideal situation is where there is a continuity of paving material so that paths and road form a definite pattern.

Where it is felt necessary to overcome this dominating aspect of the road, an effective way is to give the road a slight bend so that it does not lead the eye out of the space (Fig. 29). The amount that the road needs to deviate to accomplish this is surprisingly small.

In addition to those mentioned already, there seem to be four other reasons, in Canada, for the disruptive appearance of roads.

(1) Where there is no curb and cars have worn bare a broad and unsightly verge, the road appears to be much wider than necessary (Fig. 30). There should, of course, be some form of curbing to prevent cars from running onto the grass. In some places, white-washed stones, placed at intervals, seem to be quite adequate on quiet streets (Fig. 31).

(2) Sidewalks placed next to the road accentuate the width (Fig. 32). Apart from aesthetic reasons, an argument for a grass strip between the walk and the road is that it gives some protection from splashing cars. It also provides a place for piling snow. The strip, however, must be adequate to permit growth and maintenance.

¹Frederick Gibberd, *Three Dimensional Aspects of Housing Layout*, R.I.B.A. Journal, August 1948.

(3) Where there has been much excavating, the excess material is banked up on the front lawn. This forms a higher level on each side of the road or three different planes on the floor of the space. As each side plane is frequently cut into by drives and footpaths, any sense of continuity is further disrupted.

(4) Where different materials are used, such as black asphalt for the road, yellow gravel on drives and white concrete walks, the floor is badly broken up. It would be ideal if the same material could be used for all three. Where this is not possible, either walks and drives or drives and roads should be the same colour.

THE ROAD AND LOCAL CHARACTER

The road pattern plays an important part in the formation of groups and spaces and in establishing the individuality of a neighbourhood (*compare Figs. 29 and 30*).

In order to create the identity of a neighbourhood, the planner must begin with a concept of the kind of spaces to be created and of their relation to each other. Otherwise, the road pattern will tend to dominate his grouping of buildings, especially if he is influenced by topography or by an adjoining street pattern.

Several areas in Toronto have already been mentioned which can be identified by their distinctive road pattern.

In Ottawa, there are two layouts which are important.

Rockcliffe Village, while designed for large residences, has a plan which could be adapted to the average subdivision. Generally, the roads are very short and the vistas are blocked. Where longer roads are used, slight bends are frequently introduced between straight stretches. There are no crescents. Because there is no through or filter traffic, the average road is sometimes little more than a lane and there is a feeling of intimacy throughout the area.

It is realized, of course, that the beauty of Rockcliffe depends to some extent upon the undulating and some-

what hilly site and upon its dense growth of mature trees. But it is the road pattern which makes the area what it is. A grid plan would have made it a commonplace subdivision.

Adjacent to Rockcliffe is Lindenlea, a very small area with homes of average size. It was laid out by Thomas Adams in the early twenties. The site is not more than a thousand feet in either direction; yet, within this small space, there is an astonishing and charming variety. The roads are very short, the longest being 700 feet. Some are quite straight and others have very slight bends, no more than 20 feet or the width of the pavement, just sufficient to stop the view.

There are five small parks or greens (besides numerous islands at road junctions), but because the scale of the area is so small, they appear quite large and there is a very pleasant sense of spaciousness.

Lindenlea has a definite identity and it is due entirely to the road pattern (*Fig. 31*).

WIDTHS OF ROADS

It is a pity that a minimum road allowance of 66 feet has been established in Ontario. The width of both the public right-of-way and of the paving should bear some relation to the use. A cul-de-sac serving five houses or a loop with twenty units does not require the width of a collector road serving 200 or more dwellings.

In development after development, all the roads and paving are of identical width, no matter what their function may be. And it is safe to say that the average street has a hundred feet or more between opposite rows of houses (66 feet plus two setbacks of 20 feet each).

Even apart from the question of economics, aesthetics demand a more flexible approach to street widths.

Where the houses are only single-storey, the width between them is out of proportion to the size of the dwellings. This space destroys all sense of scale and makes the tiny housing units seem even more insignificant.

It is not proposed that all roads be reduced in width; nor is any particular distance between buildings suggested. The planner, however, should have the freedom to manipulate his spaces and the width should bear some relation to, and be influenced by, use and appearance.

The question of road width is particularly important in the design of spaces and groups of buildings. To achieve the sense of enclosure, the end houses should be brought as close together as possible. It is suggested that, where a road allowance of 50 feet is required by the design, these end houses should be built up to the front property line.



Fig. 31



Fig. 32

VARIATIONS IN ROAD PAVING

It would be interesting to see experiments in the use of different road materials as part of the design of a street, either to define space (by changing at the limits of the space) or to indicate a different use. Parking bays could be cobbled and, where two streets met, there could be a section of stone setts across the minor road. This would indicate that the other street ran across and was the more important one.

Also, pedestrian crossings could be permanently marked by a change of material.

The provision of some kind of curb is fundamental to good appearance. This is especially true on a street where there are two families to a house because of the excessive number of cars being parked. White stones have already been mentioned. If a concrete curb is provided, it need not be more than three or four inches high. This is sufficient to stop the average motorist from driving onto the grass. Higher curbs are not only more expensive but they are more easily broken. Also, heavy and clumsy design will accentuate the disruptive appearance of the road.

SIDEWALKS

Concrete is the standard material for sidewalks today but this was not always the case. There are several miles of brick paving, both a standard red and a blue type with diagonal hatching in Toronto. Jarvis Street, Toronto, has sidewalks of large limestone slabs which are much more pleasant to walk on than concrete. Also there is a section in the main street in London, Ontario, which has a curious, triangular paving in several colours.

Besides helping to give an area some character, brick sidewalks would cost less, both initially and in the long run. When they are laid on dry sand, they can easily be taken up and relaid if they become uneven. Concrete, on the other hand, when it deteriorates, has to be torn up and replaced.

European cities use pre-cast slabs of many shapes set in dry sand. These slabs and bricks are not affected by hard weather. The brick walks in Rosedale, Toronto, have been down thirty or forty years. When laid in sand, they dry out quicker and do not form the extensive pools found in sagging, concrete walks.

STREET FURNITURE IN THE STREET SCENE

Street furniture is a very important material of design. The following items are included under this heading: power and phone lines; poles and transformers; street lights; fire hydrants; letter boxes; drop boxes; newspaper boxes; phone boxes; street name signs; traffic signs; parking signs; and fences.

If the street furniture is completely uncontrolled, the neatest composition can be ruined.

Utilities. Poles, wires and transformers are probably the worst offenders in cluttering a street. Fortunately, power and phone lines are being run down the backs of lots in some places. All poles, whether carrying wires or street lights, should be spaced evenly apart to provide

a rhythm; and only straight poles should be used on long streets where several are seen in relation to each other. Also, the position of poles and fire-hydrants must be considered in relation to footpaths and driveways.

Boxes. The placing of phone boxes, letter boxes, drop boxes and newspaper boxes is often very untidy. They usually give the appearance of having been left lying around. Newspaper, letter and drop boxes are not hard to handle because of their size, but telephone boxes, because of their poor design, are more difficult. All of these could look as if they belonged and are really wanted where they are. They should be grouped together with a surrounding paved area and incorporated into the general design by landscaping.

Street Names, Traffic and Parking Signs. These small items can easily create a sense of clutter in a street. Usually, they are poorly-designed and quite unrelated in shape, size and colour. Because they do not have proper brackets or supports, they are all too often tacked onto something that happens to be near at hand, even if they are poorly located and cannot be seen. A well-designed street plan will require a minimum of signs; but, when they are necessary, the municipal departments concerned should cooperate.

Fences. Fences and hedges were almost totally absent from the Canadian street scene at one time, but both are appearing with increasing frequency in the suburbs. Fences are mainly of two designs, picket and rail, and are usually painted white; but a natural-colour woven type is also found. A mixture of fence types can look very untidy. The scene is made worse when they are painted different colours and when they appear spasmodically here and there down the street. In the design of spaces and groups of buildings, only one type of fence should be seen at a time.

"The truth is that we have neglected the amenities of life. We have forgotten that endless rows of boxes upon dreary streets are not really homes for people and can never become such however complete may be the drainage system or however pure the water supply. Important as all these provisions for man's material needs and sanitary existence are, they do not suffice. There is needed the vivifying touch of art which would give completeness and increase their value tenfold; there is needed just that imaginative treatment which could transform the whole."

SIR RAYMOND UNWIN,
Town Planning in Practice.

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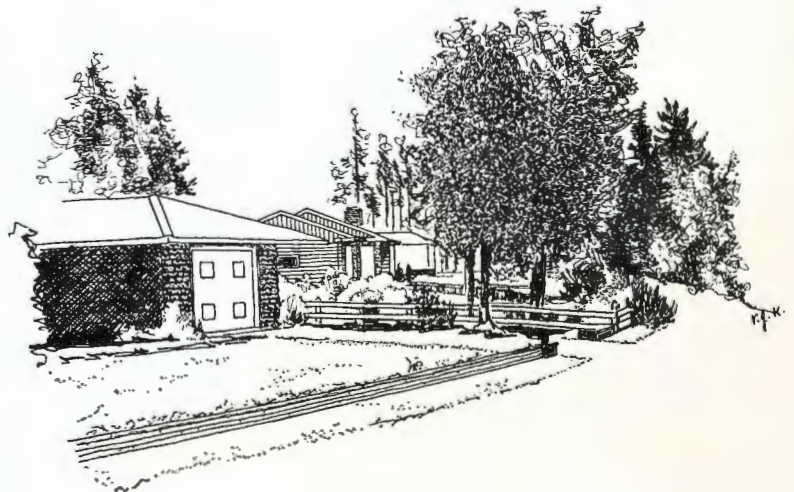
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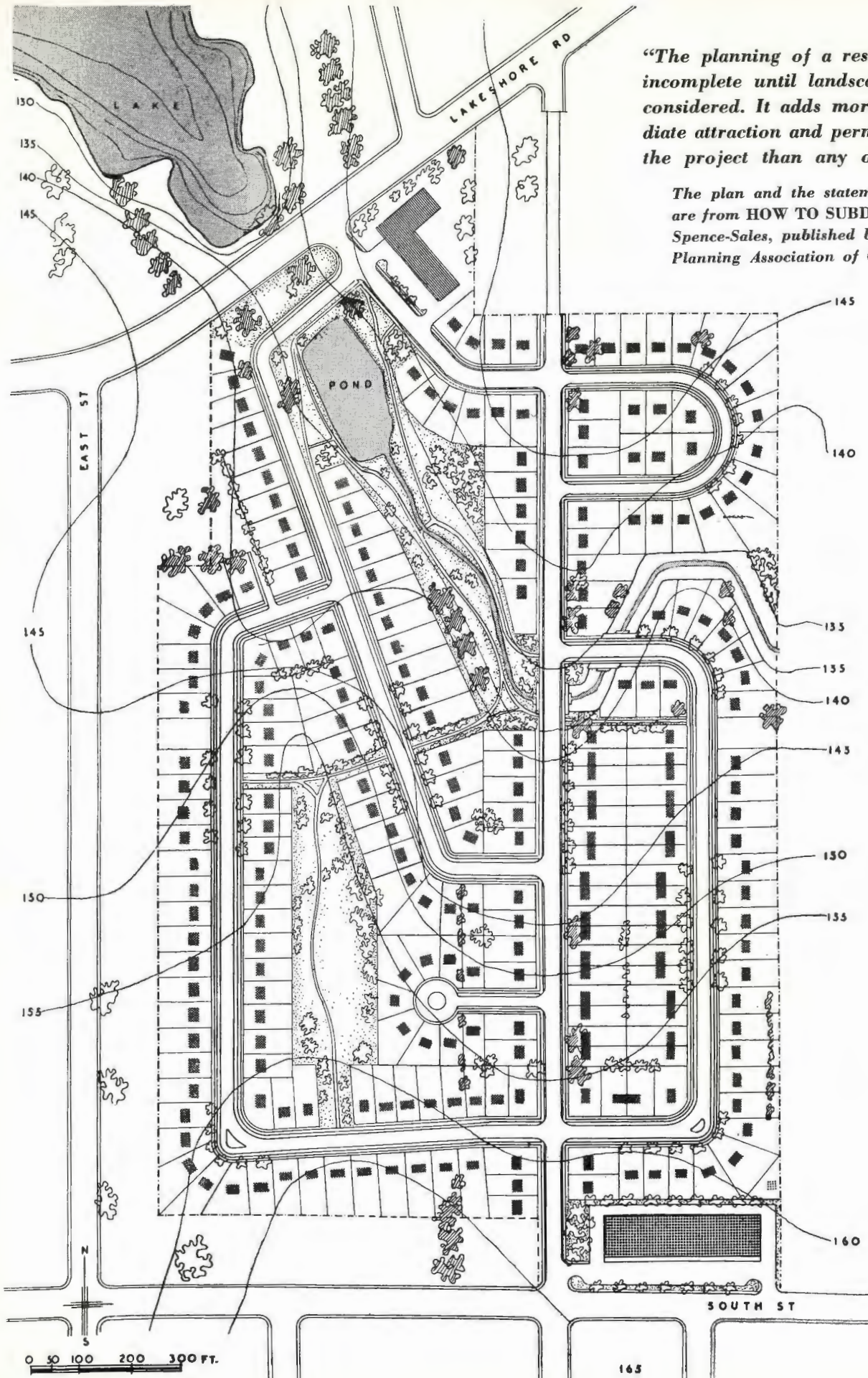
Fences of merit
Vancouver, B.C.

From
V. J. Kostka:
Planning Residential Subdivisions



"The planning of a residential area is incomplete until landscaping has been considered. It adds more to the immediate attraction and permanent value of the project than any other element."

The plan and the statement quoted above are from HOW TO SUBDIVIDE, by Harold Spence-Sales, published by the Community Planning Association of Canada.



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